Encyclopedia of

EDUCATIONAL THEORY *and* PHILOSOPHY

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D

DALTON PLAN

The American teacher Helen Parkhurst (1886–1973) developed, at the beginning of the 20th century, the Dalton Plan to reform the then current pedagogics and the then usual manner of classroom management. She wanted to do away with teacher-centered lockstep teaching. The Dalton Plan was based on the idea that students learn best by organizing their schoolwork themselves and freely cooperating with their teacher and fellow students. This entry discusses how Parkhurst developed the Dalton Plan, the principles of the plan, and the growth of Dalton education.

During her first experiment, which she implemented in a small elementary school as a young teacher in 1904, she noticed that when students are given freedom for self-direction and self-pacing and to help one another, their motivation increases considerably and they learn more. In a later experiment in 1911 and 1912, Parkhurst reorganized the education in a large school for 9- to 14-year-olds. Instead of each grade, each subject was appointed its own teacher and allotted its own classroom. The subject teachers made assignments: They converted the subject matter for each grade into learning assignments. In this way, learning became the students' own work; they could carry out their work independently, work at their own pace, and plan their work themselves. The classrooms were turned into laboratories, furnished and equipped as work spaces, and tailored to meet the requirements of specific subjects—a place where students work. Useful and attractive learning materials, instruments, and reference books were put within the students' reach. The benches were replaced by large tables to facilitate cooperation and group instruction. This second experiment formed the basis for the next experiments, at the Dalton School and other schools in New York, from 1919 onward. The only addition was the use of graphs and charts enabling students to keep track of their own progress in each subject. From that time on, it was called the Dalton Plan.

In 1921 and 1922, Parkhurst explained the theory of the Dalton Plan in a series of articles published in the *Times (London) Educational Supplement* and in her book *Education on the Dalton Plan.* It can be reconstructed as follows. According to Parkhurst (1922), the Dalton Plan is an "efficiency measure": "a simple and economic reorganization of the school" (p. 46). Lockstep teaching is not efficient, because it is the teacher who does all the work. The Dalton Plan "creates conditions which enable . . . the learner to learn" (p. 34). Learning is the same as experience: "Experience is the best and indeed the only real teacher" (p. 152). The school has to provide for sufficient experience. This cannot be achieved by keeping students as passive recipients, separating them from one another, holding them in one place, requiring them to remain silent, making them learn lessons by heart, and subjecting them to whole-class recitation. We can provide for experience through the "liberation of the pupil" and the "socialization of the school" (p. 46).

In the Dalton Plan, freedom is the opportunity to do the schoolwork oneself, to organize it oneself (how, where, and when), and to carry it out at one's

own pace, particularly to do it undisturbed and to work with commitment and concentration. Self-activity brings about experience. Something similar applies in the Dalton Plan to interaction and cooperation. When students are permitted to interact and work freely with one another and with teachers, in varying groups, in varied locations, with varied resources and materials, they come into contact with one another, the teachers, the subject matter, and the learning materials in different ways. This means more experience and, consequently, more learning.

In the 1920s and 1930s, Dalton education spread throughout the world. It is difficult to determine the exact number of Dalton schools, but there was Dalton education in America, Australia, England, Germany, the Netherlands, the Soviet Union, India, China, and Japan. Particularly in the Netherlands, China, and Japan, Dalton education has remained in existence. In recent years, there has been a revival of international interest. It crops up again, for instance, in England, Germany, the Czech Republic, and Slovakia. The Netherlands is the country with the highest density of Dalton schools. As of 2013, there were 400 Dalton schools in the Netherlands, most of them elementary schools. Making up 5% of all elementary schools, Dalton education is by far the largest educational reform movement in the Netherlands. And, contrary to Montessori, Jena Plan, and Waldorf education, it is steadily on the increase. The only Dalton school in the United States is the school that Helen Parkhurst herself founded in 1919, and was subsequently to direct for more than 20 years: the Dalton School in New York. It is a renowned school. But today, its fame is not due to its origins as an experiment in progressive education: The Dalton School is one of the most expensive private schools in New York.

Piet van der Ploeg

See also Communities of Learners; Dewey, John; Learning, Theories of; Progressive Education and Its Critics

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Daoism

Daoism (Taoism) is an ancient philosophy with origins in texts written in China more than 2,500 years ago. For perhaps just as many years, Daoism has also been practiced as a nontheistic religion, at times in secret when other philosophical/religious groups were in political and cultural favor. The key Daoist writings are characterized by many paradoxes, poetic language, and contradictory messages. Some writings ask many questions but do not provide answers, or they may answer with another question, which can be confusing to readers used to straightforward prose. In spite of its perplexing qualities, Daoism has been advocated and popularized throughout the millennia as holding truths about the pathway (*dao*) to take in life as well as the way (*dao*) to do things. Thousands of volumes have been published about Daoism, including several hundred translations into dozens of languages and interpretations by scholars and historians over two millennia. Along with the Bible, the ancient *Daodejing* (Tao Te Ching) is one of the most published books on earth.

Daoism does not hold a reputation for being an "educational" philosophy; it does not advocate formal education. Indeed, its writings have even aimed criticisms and poked fun at Confucianism, one of the most influential and powerful educational philosophies in China. However, Daoist precepts do advocate seeking wisdom in natural, informal ways. Also, given that the educational decisions of teachers and students are influenced by their personal belief systems, Daoist values have been a

potential influence on goals, curricula, instructional techniques, and student expectations.

Foundational Texts of Classical, Philosophical Daoism

As with many other major philosophical and religious traditions in the world, Daoism has grown from its beginnings in storied places with legendary scholars who were believed to have produced seminal writings. However, as the philosophy spread to other cultures and times, the original texts were altered and embellished with new interpretations and applications. Variant spellings of names arose, and religious practices that embraced the local customs of adoptive groups emerged. Discoveries of historians, archaeologists, and anthropologists came to support the notion that writings regarded as those of single individuals were actually the work of multiple authors.

The *Daodejing* and the *Zhuangzi* (Chuang Tzu) are referred to over and over as the most important sourcebooks for Daoist thought. At the end of the 6th century BCE, these volumes were said to have been created by individuals named Laozi (Lao Tzu) and Chuang Tzu (Zhuangzi).

Laozi, known as "The Old Master," was a sage during the late Zhou (Chou) Dynasty. He decided to leave his position as archivist in the court, disgusted with the corruption of the princes, the unrest of the warring states, and the general discord in society. According to tradition, the gatekeeper begged him to write down his thoughts before he traveled into the wilderness, so before he left, riding on the back of a water buffalo, he jotted down 81 short chapters of the volume we know as the *Daodejing*. On interpretation, its poetic sayings and proverbs offered wise insights and practical precepts. Some ideas are repeated many times throughout the chapters, with layers of meaning added by the varied contexts. For example, the importance of putting yourself low is presented as the valley spirit, the female, the root of heaven and earth, the follower, the one below, and employers who serve their workers. Being flexible is presented in imagery of water, with qualities of being both yielding and strong, but it is also shown as bamboo, able to bend but extremely strong, and as the precept that yielding is better than coerciveness in leadership. A reader of Laozi's writings comes away seeing the importance of practicing stillness and peace, simplicity, constancy, naturalness, taking the middle road, and being calm, as well as avoiding tendencies such as pride, extravagance, desire, striving, and "overdoing."

The volume titled *Zhuangzi* was created at about the same time as the *Daodejing*, but it came from a different region within China. Its stories share encounters and dialogues between fictional characters, both humans and animals, along with parables and admonitions, all organized and synthesized over time from dozens of chapters into the current seven divisions. Ultimate meanings highlight principles such as equality (of individuals), relativity (i.e., the value of any event varies with its context), freedom (from worldly things, from conventions), knowledge (the importance of great experiences), humanity (the importance of interactions, communication), and virtue (character development).

In the years before 1000 BCE, other writings were known to promote philosophical insights that were later emphasized in both the *Daodejing* and the *Zhuangzi*. One particularly influential text was the *Yijing* (I Ching), also known as the *Book of Changes*. It was known for its early presentation of the concept of *yin* (the receptive principle) and *yang* (the creative principle) as opposites that interact in dynamic ways to promote change. *Yin/yang* dualities are part of the dynamic balance within nature, such as hot/cold, male/female, mountains/valleys, or day/night.

Daoist Concepts

Many precepts associated with Daoism overlap with one another, while others may seem to be at odds with one another and are elusive to logical explanation. Beyond the important concept of *yin* and *yang*, some other ideas significant to Daoism include the following:

De (te) is the term that accompanies *Dao* in the title *Daodejing*, which can be translated as *The Way and Its Power*. It represents the vitality of an individual who gains harmony with the rhythms of nature. Fulfillment comes through inner strength, not through trappings such as the acquisition of riches.

Wuwei (wu-wei) indicates the action of practicing nonaction. Although it is quite a paradox, it can be thought of as doing things as part of the ebb and flow of nature (as in going with the flow). *Wuwei* means being spontaneous and comfortable with life and not indulging in competitiveness and aggression.

Pu (p'u) refers to the state of untouched simplicity that would characterize an uncarved block of wood before it is altered. It indicates the ability to

experience life in natural and spontaneous ways before being affected by the prejudices and dualistic, right/wrong thinking of living in the world.

The *three jewels of the Tao* are compassion, moderation, and humility. These three attributes characterize someone in the *Dao*. Showing love for others, avoiding doing things to excess, and not bragging are advocated attributes.

Applied and Religious Daoism

Early on, perhaps in the 3rd century BCE, the influences of early Daoist thought spread through multiple texts and the impulses of growing numbers of people to create a philosophy of life. The focus on health, personal spirituality, longevity, and immortality meant that people turned to breathing exercises, meditation, retreats into nature, herbal remedies and recommendations for physical development through yoga, *taiji* (t'ai chi), and intricate sexual practices. Religious Daoism also came to include ceremonies, priests, alchemy, evocation of spirits, and fortune-telling. Although many, including Westerners, thought of Daoist religious practices as divergent from the original philosophical vein, others involved in philosophical analysis during the late 20th century tended to see the holistic thinking and body involvement as important and worth examining.

Comparisons of Daoism With Other Philosophies

Daoist philosophy has long been revered, right along with Confucianism and Chan (Zen) Buddhism, as a mainstay of Chinese philosophy. Indeed, individuals throughout China easily hold all three philosophies within their personal belief systems. The views of each frequently conflict with one another, but there are also many overlapping, supportive elements. Citizens of modern China also include practitioners of Christianity or Islam.

To compare and contrast all the philosophies is beyond the scope of this entry, but a look at Daoism in contrast to Confucianism would certainly serve as a way to further define Daoist belief. The descriptors below recur in the literature:

Daoism	Confucianism
Individuality	Group goals
Harmony with nature	Planning, structure
Assistance, mentorship	Directed instruction
Peacefulness, tranquility	Social activism
Relativism (depends on viewpoint)	Black or white
Flexibility, tolerance	Single path, rules
Intuition	Logic
Political equality	Political hierarchies
Pluralism	Oneness
Skepticism	Solid belief
Acceptance, stoicism	Assertion
Wisdom of following	Aggressive leadership
Female emphasis, equality	Male dominance
Harmony of all living things	Human superiority

In analyzing the attributes of modern classrooms and education movements during the past century, recent scholars have drawn convincing parallels between Daoism and the qualities of progressive, holistic, and constructivist education. Modern observers of school practices know that teachers and school programs often attempt to help students find inner calm, peaceful attitudes, and personal fitness in a world beset with stressful political events and natural disasters and times of escalating social and technological change. However, it is very Daoist *not* to label these approaches as Daoist, for the first passage in the *Daodejing* reminds us that the way is nameless. Individuals may indeed adopt multiple philosophies. What will be will be.

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See also Confucius; Mencius; Religious Education and Spirituality

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DECONSTRUCTION

The word *deconstruction*, which was introduced into philosophical discussion by the Algerian-born philosopher Jacques Derrida (1930–2004), is today often used as shorthand for the critical reading of texts and the critical analysis of philosophical ideas and arguments. While much of Derrida's work does indeed contain critical readings of the work of other philosophers, and of philosophical concepts and ideas more generally, and while such readings do focus on underlying assumptions, including metaphysical assumptions, the word *deconstruction* actually has a much more precise and much more original meaning in Derrida's work. The aim of this entry is to clarify what the idea of deconstruction is "about" and to show how, through this, Derrida has made a highly original contribution to the philosophical discussion, one with important implications for education.

The Metaphysics of Presence

A major argument in Derrida's work has to do with his observation that the history of Western philosophy can be read as an ongoing attempt to identify a foundation that serves both as an absolute beginning and as a center from which everything emanating from it can be mastered and controlled. Derrida has argued that ever since Plato such an origin has been defined in terms of *presence*, that is, as an origin that is fully self-sufficient and fully present to itself. Here, we should not only think of such apparent foundations as "God" or "nature" but also of such phenomena as "consciousness," "the brain," "interaction," or "communication." Any attempt to present something as original, fundamental, and self-sufficient is a case of what Derrida refers to as the *metaphysics of presence*. According to Derrida, the metaphysics of presence not only is about the identification of something as original and self-sufficient but also entails a hierarchy in which what is seen as original and fundamental is depicted as pure, simple, normal, standard, and self-sufficient, so that everything that emanates from it can only be understood in terms of derivation, complication, deterioration, accident, and so on.

Metaphysics-in-Deconstruction

Why might the metaphysics of presence be a problem? One answer Derrida has given is that for something to be present, it actually always requires the "help" of something that is *not* present, that is, of something that is *absent*. *Good*, for example, only has meaning because it is different from *evil*. One may wish to argue that good is originary—that is, primary and fundamental—and that evil is secondary and therefore has to be understood as a lapse or a fall from goodness. But as soon as we try to define good without any recourse to the idea of evil, it becomes clear that the presence of good is actually only possible—that good can only be present—because of its relationship to what it is not, that is, its relationship to evil. We could say, therefore, that the idea of good is contaminated by the idea of evil. But this contamination is not accidental but is actually essential for "good" to have any meaning at all. This shows, however, that the very "thing" that makes good possible at the same time undermines it and makes it impossible. In more philosophical terms, we could say—and this is indeed how Derrida has formulated it—that the condition of possibility of presence is at the same time its condition of *im*possibility. And it is this strange "logic" where the condition of possibility of something is at the very same time its condition of *im*possibility that Derrida refers to with the word *deconstruction*.

Looking at it this way shows that deconstruction is not something that Derrida does or that other philosophers can do after him. It is, in other words, not some kind of method that can be applied. Deconstruction is rather something that *occurs*. While it is not up to us to let deconstruction happen or prevent it from happening, what we can do—and this is something Derrida has done many times in his own work, for example, in relation to notions such as "writing," "democracy," "friendship," and the "gift"—is to reveal the occurrence of deconstruction or, to be more precise, to reveal the occurrence of *metaphysics-in-deconstruction*.

Deconstruction Is Justice

Why might this be important? The most straightforward answer is that we might point at cases of metaphysics-in-deconstruction to do justice to what is absent and invisible but yet is necessary for something to be present. It is to do justice to what is excluded from what is present but is nonetheless necessary for what is present to be present. It is about challenging the authority of the "is," as Derrida has put it, the authority of presence—and in this sense, revealing metaphysics-in-deconstruction can be seen as a critical "gesture." More positively, it is about doing justice to the "other of presence"—which is

one of the main reasons why Derrida has suggested that deconstruction actually *is* justice.

This makes it clear that, unlike what many people seem to assume, Derrida's philosophy—which is sometimes itself referred to as *deconstruction* or *deconstructionism*—is not negative or destructive but rather *affirmative*. It is affirmative of what is absent from what is present but yet makes this presence possible. Derrida's philosophy thus seeks to open up the metaphysics of presence—or for that matter any system that presents itself as self-sufficient—in terms of what cannot be thought of in terms of the system and yet makes the system possible. This means that the point of revealing metaphysics-in-deconstruction is not simply to affirm what is *known* to be excluded. It rather is an affirmation of what Derrida refers to as something that is "wholly other," of something that is unforeseeable from the present. Revealing metaphysics-in-deconstruction thus entails an openness toward an *unforeseeable* in-coming of what is other. In some places, Derrida refers to this as "the impossible," bearing in mind that "the impossible" is not about what is *not* possible but about what cannot be *foreseen* as a possibility.

Beyond Foundationalism and Antifoundationalism

All this does not amount to a destruction of metaphysics. While Derrida questions the possibility of pure, self-sufficient foundations, he stresses that this does not mean that we can simply do away with them, for the simple reason that to be antifoundational, we already need to stand somewhere. Although Derrida wants to "shake" metaphysics—and in this regard his philosophical work clearly has a critical impetus—he acknowledges that this cannot be done from some neutral and innocent place "outside" of metaphysics. What is more to the point, therefore, is that Derrida wants to "shake" metaphysics by showing that metaphysics is itself always already "shaking," that it is always already "in deconstruction." In this regard, his "project" is different from those forms of critical philosophy that position themselves outside of what they want to be critical of or that simply declare that we should abandon the whole idea of foundations.

Education-in-Deconstruction, Deconstruction-in-Education

Derrida's work has suffered from quite a lot of bad press, particularly from those who saw it as destructive rather than affirmative—who saw it as a destruction of certainties rather than as an affirmation of the exclusions that make such "certainties" possible. Nevertheless, educational theorists and philosophers have tried not only to show the ways in which deconstruction can be said to occur in education but also to highlight why it might be important to make this visible. One important line of work has focused on the role of communication in education. While communication is often depicted as the transportation of information from one location to another, *human* communication is a process that takes place through interpretation. We can say, therefore, that it is only because students try to make sense of what their teachers teach that education is possible. This reveals, however, that what makes education *possible*—interpretation—at the very same time makes it *impossible*, as interpretation is a radically open process where the identity between what is said by the teacher and how it is interpreted by the student can never be completely guaranteed. Why might it be relevant to highlight the deconstructive character of educational communication? Not to suggest that education is not possible at all—which would be a destructive conclusion—but rather to appreciate what would happen if education were to become 100% possible, so to speak—that is, when education would turn into a process of the "perfect" transmission of information from teacher to student. To achieve this would require that we suppress all interpretation; it would require that we turn our students from human subjects into abstract, inhuman objects. While some believe that this is all that education should be about, many would argue that this turns education into indoctrination and would thus lead to the end of education. This is an important reason why we need deconstruction in education.

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See also Critical Theory; Postmodernism; Semiotics

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DELIBERATIVE DEMOCRACY

Deliberative democracy is a growing branch of democratic theory that is very influential in contemporary political practice. Deliberative democrats suggest understanding democracy in terms of exchange of reasons rather than voting or aggregation of preferences. Deliberation involves a process of mutual justification where participants offer reasons for their positions, listen to the views of others, and reconsider their preferences in light of new information and arguments. However, deliberative democracy is not a unified theory; different versions of this approach exist.

The roots of deliberative democracy can be traced back to Aristotle and his notion of politics; however, the German philosopher Jürgen Habermas's work on communicative rationality and the public sphere is often identified as a major work in this area. This entry first focuses on the theoretical underpinnings of deliberative democracy and identifies its different strands. It then describes how this theory has been applied in practice, noting its role in civic education; and finally, it presents the various criticisms that have been leveled against it.

Legitimacy

Deliberative democracy has been developed as a response to the legitimation problems of representative democracies. Although deliberative democrats differ in the extent of their criticism of representative democracy, they often conceive their view not as an alternative to liberal representative democracy but as an expansion of it. This means that while traditional tools of decision making (majoritarian voting, elections, and legislatures) remain essential, the public deliberation of free and equal citizens becomes central in legitimating collective decisions. As Joshua Cohen puts it, on this account democratic legitimacy is understood in terms of the "right, capacity and opportunity" for those affected by collective decisions to participate in the making of those decisions. Other deliberative democrats define the conditions required for achieving democratic legitimacy differently. While procedural theorists locate the source of democratic legitimacy in the presence of fair rules of the process, substantive theorists focus on the fairness of the final outcome.

Schools of Thought

Deliberative democrats differ on the questions of what sorts of communications count as deliberative, where deliberation should occur, who should deliberate, and what should be the outcome of such participation. There are no doubt continuities among these scholars, yet they operate ultimately with divergent fundamental assumptions and see different processes at work when they emphasize the need to make democracies more deliberative. It is common to distinguish between the Rawlsian and Habermasian accounts of deliberative democracy.

According to John Rawls, and the scholars advocating his approach, public deliberation must meet certain constraints to ensure that citizens are treated as equals. The most important condition is that every claim should be subject to a "public reason test." This implies that citizens should advance only those reasons that are principally acceptable to all. If citizens discover disagreements emanating from their "comprehensive views," that is, from their cultural or religious convictions and beliefs, they ought to pursue a path of what Bruce Ackerman calls "conversational restraint." Obviously, on this account, not every issue deserves deliberative treatment; the scope of public deliberation is restricted to the issues that relate to "constitutional essentials" (political norms and institutions) and questions of basic justice. Accordingly, the suitable spheres for deliberation are also restricted; the advocates of the Rawlsian approach maintain that deliberation should occur only in the state and its institutions, such as courts or legislatures.

In contrast to this rather narrow understanding of deliberation, Habermas and his followers argue that deliberation must be open to all who are affected by its outcome. There should be no constraints on topics as long as what is said can be shown to be pertinent to the issue under discussion. Habermas extends the range of acceptable reasons in public deliberation provided that they meet the "moral justification" requirement of public deliberation. This requires rational arguments that are "in the best interest" of all participants. This constraint aims to promote rational reasons, rather than powerful interests, as the basis of the common good and the path to achieving rational consensus as a result of public deliberation. Habermas is committed to

a conception of rational consensus as a regulative ideal that should guide deliberation and legitimate its outcomes.

Unlike Rawls, Habermas conceives of deliberation as taking place beyond small-scale forums, defining it as a broad communication process, or what he calls "subject-less communication," that occurs in the public sphere. This concept is reflected in Seyla Benhabib's definition of public deliberation as "anonymous and interlocking conversations" and in John Dryzek's notion of "discursive democracy" as contestation of discourses in the public sphere. For Habermas, and those influenced by him, deliberative democracy requires the presence of a vital public sphere, where contestation among citizens, groups, movements, and organizations, and opinion formation can take place. The core function of the public sphere is to identify social and political problems and thematize them in such a way that they are taken up by formal decision-making bodies such as parliaments.

The Systemic Turn

The differences between the Rawlsian and Habermasian accounts are reflected in the recent conceptualizations of public deliberation as micro- and macrocommunicative processes. While microtheories of deliberative democracy tend to focus on deliberation in relatively small groups in structured and formal deliberative forums (e.g., citizens' juries), the macrotheories draw our attention to the discursive side of democracy—the argumentation and contestation that take place within the broader public sphere. More recently, deliberative democracy has taken a systemic turn; it has emphasized that rather than conceptualizing deliberation as something that occurs in either structured forums or the broader public sphere, it is important to recognize the multiplicity of deliberative venues in contemporary democracy. The concept of a deliberative system was originally developed by Jane Mansbridge, who argued that public deliberation should entail multiple kinds and modes of conversation, including "everyday talk."

Applications

Deliberative democracy has been applied to various practical problems and policy areas, including complex divisive issues around the globe such as health care, climate change, policing, or city planning. Deliberative democracy is implemented in practice usually by setting up forums or "mini publics" involving randomly selected citizens. Examples include citizen's juries, which have been created by Ned Crosby in the United States; citizen's assemblies, which were pioneered in British Columbia; and consensus conferences, as developed by the Danish Board of Technology and widely applied elsewhere. One increasingly popular application of deliberative democracy has been the participatory budgeting process as used in Porto Alegre in Brazil, where participants are empowered to make decisions on how to allocate a defined public budget. Deliberative democracy has also been used in the context of public opinion research as a method of developing citizen preferences on difficult issues. The "deliberative polling" suggested by James Fishkin, for example, aims to construct hypothetical representations of what public opinion on a particular issue might look like if citizens had an opportunity to deliberate about it. As Enslin, Pendlebury, and Tjiattas (2001) note, deliberative democracy also plays a crucial role in the context of civic education, and educational theory in general; it helps identify the required knowledge and skills citizens should possess to participate in democratic processes effectively.

The application of deliberative democracy is not confined to local or national politics. Deliberation is claimed to offer the most suitable decision-making mechanism for multilevel polities such as the European Union. Some scholars, such as Dryzek, go even further and argue that deliberative democracy is amenable in global politics, where conventional aggregative decision-making mechanisms, such as elections or voting, are generally implausible.

Critics

Deliberative democracy has been subject to various lines of criticism. Some criticize deliberative democracy for being naively utopian in a world where politics is essentially about unequal power relations and the furtherance of self-interests. These critics point out the gap between the ideal of deliberation and actually existing conditions to justify the impracticality of deliberative democracy in any form. Others acknowledge that deliberation can be practiced but characterize it as an exclusionary and elitist model of democracy that fails to take into account the pervasive differences of race, gender, and class. Agonists such as Chantal Mouffe criticize deliberative democracy for its attempt to build "consensus" among conflicting parties, which they think

only leads to the oppression of differences. Agonists see democratic politics in terms of continued and open-ended struggles and argue for agonism over deliberation. More sympathetic critics, such as Iris Young, raise serious internal difficulties and seek to expand deliberative democracy in ways that can better accommodate the various differences citizens may have. In a similar vein, Nancy Fraser sees the Habermasian notion of the public sphere as a unitary bourgeois construct and expands it through her focus on multiple publics, including "subaltern counterpublics," formed by oppressed minorities. Some of these criticisms have already been incorporated into the theory of deliberative democracy.

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See also Citizenship and Civic Education; Critical Theory; Democratic Theory of Education; Dialogue; Rawls, John

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Democratic Theory of Education

Democratic theories of education embrace the assumption that society is constituted by citizens with a great diversity of life plans and that individuals' efforts to pursue them can lead to conflict or, at a minimum, questions about the relative distribution of opportunities and resources. Thus, democratic theories of education concern themselves both with authority over the way schools function as institutions with great socializing power and with the capacities and dispositions individuals must develop to sustain democratic social relations from one generation to the next. This entry will discuss a number of such theories, but it will also reject the assumption that all democratic theories of education are to be found in the liberal tradition. Nevertheless, an important theme of the entry is highlighted in the words of one of the liberal tradition's central proponents, Amy Gutmann (1999), who argued that democratic theories of education aim at preparing citizens to engage in "conscious social reproduction" (p. 14).

John Dewey and the Great Community

No account of democratic theories of education can escape the historical influence of John Dewey's legacy, most notably his landmark text, *Democracy and Education* (1916). Here, Dewey embeds schooling in a broader vision of democratic life, which he famously characterizes as "primarily a mode of associated living, of conjoint communicated experience" (p. 87). In that work and others, Dewey explores the relationship of schooling to conscious social reproduction, though his answer might best be described as involving conscious social *reconstruction*. For Dewey, schooling is a powerful socializing experience that helps young people develop the skills, habits, and knowledge that support participation in democratic life. Rather than seeing democratic education as a fixed set of practices or a definitive body of knowledge that might ensure proper socialization, Dewey argues instead that it should be understood as the means by which students learn to engage in forms of inquiry rooted in and responsive to the collective projects of the community. Dewey understood that these forms of inquiry would change and evolve over time and that schooling would need to constantly adjust to both the developmental needs of youth and the forms of knowledge appropriate for a given time and place. Thus, citizens educated in a healthy democracy learn to critique and reconstruct the very institutions and practices that shape their lives now, in order to sustain the foundation of democratic social relations over time. Dewey envisioned schools as embryonic democratic communities, where students learn how

to engage in the process of collective reconstruction and how to find their own paths within it.

Democratic Citizenship, Cultural Pluralism, and Civic Virtues

Democratic theories of education, like their political counterparts, must face the challenge that pluralism presents for any participatory form of governance. Indeed, it would not be unfair to describe this as the most pressing issue for both educational and political theories of democracy. Largely drawn from the tradition of liberal moral and political thought, the approaches considered in this section pursue two related questions: (1) how can decisions about schooling be made when disagreements arise (including differences about the requirement to participate in public schooling at all) and (2) how can students be best prepared not only to live in a pluralistic society but also to prosper from the many benefits that such diversity brings?

Many contemporary answers given to these questions by liberal educational theorists have been informed by the work of the philosophers John Rawls and Michael Walzer. Amy Gutmann (1987/1999), for example, influenced by Walzer, offers a democratic theory of education that seeks to determine the boundaries of authority in making educational—that is to say, political—decisions: "Except by abolishing mandatory schooling, there is no way of avoiding a political decision about the content of schooling, its distribution, and the distribution of educational authority" (p. xi). Thus, rather than trying to settle conflicts over educational policy and practice through the application of some timeless moral calculus, Gutmann seeks a principled way to determine the authority and responsibilities that individuals, families, and the state possess to settle such disagreements. Gutmann's principles of nonrepression and nondiscrimination set limits on the exercise of each group's authority, fostering educational experiences that help students develop the capacities to participate in similar activities in the future. Gutmann's approach eschews barriers to participation (especially by less powerful groups) while remaining responsive to the changing circumstances of life in a democracy and the cultural differences that inevitably constitute it.

Other approaches to answering the two questions posed above focus more directly on the virtues and capacities that schools might seek to develop in students in order to prepare them for life in a pluralistic democracy. As with Gutmann, such theorists begin with the recognition that this requires a form of political education aimed at reproducing democratic social relations in a way that does not diminish or marginalize the diversity of life plans that citizens hold. Eamonn Callan (1997), for example, has this orientation; he draws a distinction between "reasonable and unreasonable pluralism" and posits that education should help students to discern the difference. Common schools are places where students learn to be reasonable, that is to say, they are places where they learn to understand, exchange, and explore the reasons given by others who are different from them.

Many other examples might be considered to give greater breadth to this perspective. Ken Howe (1997), for example, focuses on the concept of equal educational opportunity ("opportunities worth wanting") as a foundation for democratic educational theory. Building on the work of the political philosopher Will Kymlicka (and to some extent on the work of Gutmann as well), Howe argues that by considering the "context of choice" that schools present, we can better see how responsive they are to the multiplicity of identities and life plans that students bring, as well as the barriers to success that many students experience. Meira Levinson (1999) argues that liberal education and liberal politics cannot exist without each other and that their shared commitments require an "autonomy-promoting education" to establish the common deliberative qualities necessary for reasoned exchanges and decisions in the public sphere. David Blacker (2007) argues that schools should be much more permeable to reasonable and competing cultural beliefs, traditions, and groups. For Blacker, deep commitments associated with "comprehensive conceptions of the good" are primary sources of motivation for democratic engagement. In response to the inevitable conflicts that do emerge, Blacker argues that groups must embrace norms of reasonable public discussion buttressed by commitments to a Rawlsian conception of civic friendship.

While the liberal tradition is a rich and robust source of answers to the questions with which this section opened, its ideas have provoked responses from a variety of sources, not the least theorists embracing conservative or neoconservative political perspectives. Rather than seeing cultural pluralism as an inevitable and generative attribute of democratic life, many see these aspects as potential threats to both national identity and social stability. For

example, Arthur Schlesinger Jr. (1998) worries that an uncritical expansion of the academic canon by advocates of multicultural education risks diminishing the core values that hold the nation together. He asks, "When does the obsession with difference begin to threaten the idea of an overarching American nationality?" (p. 81). In a long series of popular books ranging from 1988 to 2009, E. D. Hirsch Jr. has argued that access to the benefits of democratic society depends on the acquisition of a core set of cultural ideas and reference points (i.e., cultural literacy) that democratic schools should overtly teach. He rejects Deweyan progressivism as the source of much wasted effort and ineffective instruction and argues for more direct transmission of this common body of knowledge, especially to students from marginalized backgrounds.

Culture, Power, and Critical Consciousness

Theorists in the critical tradition have long argued for the necessity of a more structural approach to understanding how schools succeed or fail in building and sustaining democratic social relations. These theories focus on the ways in which schooling helps reproduce hierarchies of power and status based on class, race, gender, and other salient aspects of social identity. They often reject liberal theories of education as overly individualistic in their analysis of the roots of contemporary challenges to democracy and as being ill equipped to justify or guide the necessary reforms.

Critical theorists are also interested in how schooling shapes the understanding of students and prepares them to participate in a democratic society. A major difference, however, rests in the starting point of this process. Using concepts from the Marxist tradition, such as ideology and hegemony, critical theorists seek to demonstrate how social institutions like schools can shape the consciousness of individuals in ways that constrain the exercise of democratic deliberation, reduce the capacity for discerning the source and significance of inequality, and reproduce structural hierarchies that sustain class privilege into the future. The relationship of ideology to consciousness is so fundamental, critical theorists argue, that it shapes the very nature and construction of knowledge.

If democratic societies are to be open and responsive to the needs of all citizens, then schools have a crucial role not just in helping students develop capacities related to participation but also in assessing existing forms of knowledge, patterns of social interaction, and norms of institutional practice. These may actually be the product of class interests, and their acquisition a form of oppression or complicity. Schooling should contribute to "illuminating the tendencies for unwarranted and often unconscious domination, alienation, and repression," as Michael Apple argued in his groundbreaking work *Ideology and Curriculum* (1979/2004, p. 126). On this account, students must develop the kind of critical consciousness that allows them to question unexamined assumptions and taken-for-granted understandings of the world in order to discern the interests that may motivate seemingly neutral and uncontroversial knowledge claims, especially those found in school curricula. For teachers, as Ira Shor notes, this entails crucial choices about how to engage students with the curriculum and where they find themselves within it. Critical theorists press for a deeper understanding of the relationship between power, knowledge, and various aspects of education for democracy, including curriculum content, instructional practice, and the organization of schooling.

Future Directions in Democratic Educational Theory: Cosmopolitanism

In contrast to democratic educational theories, most of which assume an individual nation-state or society as the primary unit of analysis, work in cosmopolitan moral theory suggests a different starting point. Cosmopolitanism challenges traditional conceptions of the boundaries of moral obligation and political affiliation—and thus the role of schools in society—by expanding the focus of deliberation to a global scale. Because there is a global common humanity, and because the solutions to global problems require collaboration across state boundaries, cosmopolitan theorists challenge traditional views of democratic education on both moral and political grounds. Martha Nussbaum and Joshua Cohen (1996), for example, argue that one of the primary goals of cosmopolitanism is to reduce the distance between innermost experiences of affinity and the outermost circle of global awareness.

Like other democratic educational theories, such an approach aims at building a variety of capacities related to deliberation and dialogue. Unlike other perspectives, however, cosmopolitan education would confront an even greater diversity of (and conflict among) cultural identities and social

locations. Schooling under these terms would take the familiar virtues and capacities of democratic education (including, for some, the development of critical consciousness) and extend them beyond the customary boundaries of the state. Education for democracy in a cosmopolitan world would focus on building the capacity to engage in authentic inquiry, dialogue, and collaboration across national and cultural boundaries; the capacity for inquiry directed at the fundamental social, political, and cultural structures that shape self-understanding and understanding of others; and the disposition to seek reciprocity with others through perspective taking and mutual exploration of life plans. At its roots, a cosmopolitan education would be guided by a commitment to engage deeply with the processes by which identity, culture, and political systems are constructed and reconstructed over time.

Such an education stretches the notion of "conscious social reproduction" to its limits and perhaps beyond. It is here that Kwame Anthony Appiah's (2006) conclusion is perhaps most appropriate not only for cosmopolitanism but for all democratic educational theories: "Cosmopolitanism is the name not of the solution but of the challenge" (p. xv).

Scott Fletcher and Peter Nelsen

See also Apple, Michael; Citizenship and Civic Education; Cosmopolitanism; Critical Theory; Cultural Literacy and Core Knowledge/Skills; Deliberative Democracy; Dewey, John; Liberalism; Rawls, John

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DESCHOOLING SOCIETY: IVAN ILLICH

In education, Ivan Illich (1926–2002) is closely tied to his most famous book *Deschooling Society*. This book not only featured a radical critique of modern education institutions that were undergoing unprecedented expansion in the 1970s but also offered a set of proposals or guidelines for anyone intent on creating a world without schools. Furthermore, in this book, Illich experimented with a new critical study of educational institutions. He considered that beyond the rituals of schooling and the culture of social reproduction that fed the schools, a justificatory and legitimizing discourse could be discerned. Illich placed this discourse into the context of the U.S.-driven developmentalist policies of the second half of the 20th century. In an environment of deep systemic restructuring happening worldwide, the idea of progress was the background to school expansion. As a result, as was stated in *Deschooling Society*, fighting against development and progress imposed by capital meant fighting with the very institutions that supported them. One such institution was the school.

Deschooling Society was the book that had the most impact of all the books that Illich produced in the 1960s and 1970s, the time when he took up residence in the city of Cuernavaca (Mexico). He railed against schools as the institution that was the depository of the highest aspirations of Western societies, which led to an unprecedented uproar in academic circles as well as in many of the social movements that still believed that educational institutions were capable of solving society's biggest problems. In addition, those who in the mid- to late 20th century had set out to organize alternative spaces for learning that were different from the official education

systems found that *Deschooling Society* gave them new material for criticizing schools while opening up a range of pedagogic alternatives that could be exploited and implemented. Furthermore, many of these alternatives also involved a change in perspective regarding the use of the existing technology, which in turn involved a change in the conception of the relationship that a society can establish with the technology it is capable of creating. In place of the corrupting influence of educational institutions that treated education as a commodity, Illich proposed the establishment of "learning webs" (which could be facilitated by the emerging computer technologies), wherein skills and knowledge could be passed on through peer-to-peer voluntary contact. In a sense, it may be said that Illich amply carried out the latent objective in his work: to break the myths around schools and schooling.

Illich did not content himself with laying out the theoretical lines that justified the thinking of a society in which education was de-institutionalized. Rather, he also put into practice many of his postulates at the center that he and a tight-knit group of collaborators opened in the Mexican city of Cuernavaca: the Centro Intercultural de Documentación (CIDOC; International Documentation Center). Open from 1963 to 1976, this center became a space of international renown where avant-garde intellectuals and politicians came from all over the world to study, research, and converse. Along the hallways of Illich's center could be found the likes of Paulo Freire, Peter Berger, Erich Fromm, Paul Goodman, Enrique Dussel, André Gorz, Jean-Pierre Dupuy, Augusto Salazar Bondy, Susan Sontag, John Holt, Everett Reimer, Francisco Julião, Octavio Paz, and others. Sweeping sectors of the social protest movements also took part in activities there, and the center helped bridge the gap with the emerging counterhegemonic and counterculture sectors that were turning Latin America into one of the most outstanding political laboratories on the international scene.

Currently, a careful reading of *Deschooling Society* may be more worthwhile for the historian studying the mind-set of the 1960s and 1970s than for someone who now wishes to study minimally feasible alternatives to traditional schooling. When analyzed in the shadow of the philosophic, economic, sociological, anthropological, or historical approaches of the past 40 years, Illich's book comes across as an imprecise essay that adopts an outdated methodology. It is worth mentioning that Illich himself detected many of these theoretic blunders in *Deschooling Society* in later decades. In fact, in an introduction to the book by Matt Hern titled *Deschooling Our Lives* (1995), he even wrote that his critique in the 1970s of educational institutions was a naive effort at understanding the discursive complexity that upholds and reinforces education and its institutions in the modern world (e.g., the influence of the family, mass media and advertising, and economic institutions was downplayed). More than 20 years after it was first published, he considered that the texts making up *Deschooling Society* in some ways were a sincere effort at bringing to light the damage done to the world by the spread of the institutionalization of learning, although they were mistaken because he himself at that time had been barking up the wrong tree in his attempt to configure a criticism of the modern institutions of education.

Jon Igelmo Zaldívar

See also Freire, Paulo: *Pedagogy of the Oppressed* and Critical Pedagogy; Homeschooling

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DESIGN EXPERIMENTS

Introduced in 1992 in the educational research literature in two seminal articles by Ann Brown and Allan Collins, a design experiment (DE) is a method

of inquiry that embodies what is today commonly called design-based research. A major characteristic is that a DE involves the development and application of an instructional intervention in a genuine educational setting. Complaints about the disconnect in education between research and theory, on the one hand, and educational practices, on the other, are still the order of the day. In view of bridging this gap, DEs have a twofold goal: advancing theory building about learning from instruction while at the same time contributing to the fundamental innovation and improvement of classroom practices. After a more detailed description of the characteristics of a DE, critical discussions of DEs will be addressed, and a final comment will be made about the current status of design-based research.

Basic Characteristics of DEs

According to Brown and Collins, DEs aim at the development of a design science of education that can guide the design and implementation of novel effective learning environments. In terms of Donald Stokes's quadrant model of scientific inquiry, DEs can thus correctly be situated in Pasteur's quadrant (named for the research of Louis Pasteur), which represents use-inspired basic research. Indeed, DEs aim at the simultaneous pursuit of the advancement of our understanding of the processes of learning and instruction, on the one hand, and the innovation and improvement of classroom practices, on the other. In that perspective, a key feature of a DE consists of the *theory-driven* creation of an educational intervention: Designing the intervention draws on the available evidence-based knowledge about productive learning and effective teaching that derives from multiple disciplines, including developmental psychology, cognitive science, the learning sciences, educational technology, curriculum theory, instructional design, anthropology, and sociology. But a DE is also *theory oriented*: It is anticipated that the implementation and evaluation of the intervention will contribute to the continuous development and elaboration of theory.

To warrant as much as possible that DEs will result in principles and artifacts that can lead to the innovation and improvement of classroom practices, the design of interventions takes place in an interactive collaboration among researchers and practitioners, and the interventions are implemented and evaluated in regular classroom contexts. Both aspects are essential conditions in view of achieving

effects in the real world. A special feature of most DEs is also that they run over a long period of time and involve multiple iterations, that is, the intervention is flexibly adjusted, refined, and improved as it unfolds during the course of the investigation.

To assess the effects of an intervention in a DE, multiple mixed methods—quantitative as well as qualitative—are used in an integrative way to assemble and cumulatively construct a body of evidence that supports the underlying theoretical principles of an innovative approach to learning and teaching. It is important not to confuse design-based research and action research. There are similarities among these two research strategies: Both address real educational problems and set up actions in collaboration with practitioners who aim at solving them. However, whereas action research focuses on meeting local needs, the major goal of design-based research is the development and elaboration of theory that can guide the design of powerful learning environments.

Critical Discussion of DEs

Since its emergence two decades ago, DEs have received growing interest in the educational research community, as is evidenced by the fact that in 2003 and 2004 three major journals in the field published a special issue devoted to design-based research: *Educational Researcher*, 2003, Vol. 32 (1); *Journal of the Learning Sciences*, 2004, Vol. 13 (1); and *Educational Psychologist*. However, besides enthusiasm about the potential of DEs to contribute to bridging the disconnect between research and practice, this methodological approach has also evoked criticisms that mainly relate to objectivity, concern about data selection, lack of rigor, and the possibility of simultaneously contributing to theory building and improvement of educational practices.

The problem of objectivity arises because in a DE the researcher is also a participant in the development and implementation of the intervention and thus adopts two potentially conflicting roles. Ann Brown herself raised the danger of biased interpretation of data in the direction of the researcher's expectations in her 1992 article, referring to it as the *Bartlett effect*. The second criticism concerning data selection—also already discerned by Brown—aggravates this problem and derives from the iterative nature of design-based research. Indeed, the iterations result in an excessive amount of data from which the researcher has to make a selection

for analysis. It is of utmost importance that design-based researchers are aware of these problems that can jeopardize objectivity. An approach suggested by the Design-Based Research Collective to warrant as much as possible this objectivity consists in using triangulation of a variety of data from multiple sources.

From the perspective of the canons of experimental research, DEs are criticized, for instance, by Joel Levin and Angela O'Donnell, for lack of rigor, especially for the confounding of variables and the lack of randomization. Both issues derive from the fact that in a DE complex interventions are engineered and implemented in a rather small number of naturalistic classroom settings. Because of the complexity of the learning environments in DEs, it becomes impossible to disentangle the relative contribution of the different variables involved in producing the effects of the intervention. Furthermore, moving into the everyday reality of self-contained and often messy classrooms easily conflicts with the canon of randomization, the more because in many cases no control classes are involved. However, one can argue that the systemic approach of DEs is nevertheless appropriate and defensible when the focus of interest is to evaluate the quality and effectiveness of a multi-componential intervention. Of course, this approach should be complemented with more rigorous randomized classroom trials. Indeed, as argued by Susan McKenney and Thomas C. Reeves, increasing the methodological robustness is a challenge.

Single DEs can certainly not lead simultaneously to theory building and the improvement of practice. However, analysis of the now available literature on design-based research, for instance, in a recent article by Terry Anderson and Julie Shattuck, seems to support this potential of DEs. It is plausible that through sequences of intervention studies, combined with more controlled investigations, DEs can contribute to the advancement of theories of learning from instruction by exploring the potential of novel learning environments and developing contextualized theories of learning and teaching.

Final Comment

As argued by Terry Anderson and Julie Shattuck, the application of DEs has increased over the past decade, and this is certainly also due to the positive effects on student outcomes. One can say that today design-based research has acquired the right to exist in educational research. However, so far the success of this methodology is restricted to small-scale interventions. Expanding the approach on a larger scale is a major challenge for the coming years.

Erik De Corte

See also Educational Research, Critiques of; Learning, Theories of; Pure and Applied Research and *Pasteur's Quadrant;* Qualitative Versus Quantitative Methods and Beyond

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DEWEY, JOHN

John Dewey (1859–1952) was a founder of American pragmatism and a major figure in the progressive education movement, which flourished in the early to mid-20th century. Born in Burlington, Vermont, where he attended public school, Dewey went to the University of Vermont, where he became interested in philosophy. After graduation, he taught briefly in Oil City, Pennsylvania, known (as its name suggests) for its early role in the petroleum industry.

Dewey was born the same year as Darwin's *Origin of Species* (1859) was published, and one year before the Civil War began. Both events would prove to be landmarks for Dewey's thought: Darwin because his ideas about evolution permeated Dewey's

philosophy; the Civil War because Dewey inherited and advanced the new understanding of industrial democracy that it inaugurated. Indeed Dewey was as much an *American* philosopher as Walt Whitman was an American poet or Mark Twain an American humorist. As a man, he reflected his times and place; as a philosopher, he worked to understand how to direct the energy they produced toward democracy; as an educator, he worked diligently to reform schools and to reconstruct our understanding of the educational process.

Dewey was a philosopher of the industrial and scientific age. Only 10 years before his birth, the railway first connected the East Coast to the Great Lakes, and 10 years later, it was extended, reaching from the East Coast to the West. Before he died, a message could be transmitted overseas by phone in seconds, roads tied together every part of the country, and transcontinental jet air travel was poised to become commonplace. Dewey was also a philosopher of transformation, living through two world wars: He saw the country altered from a minor player on the international stage to the most powerful country on earth. And he was a philosopher of liberal democracy, working to ensure that democratic traditions survived and flourished in an age of great wealth and technological expertise. Dewey's philosophy reflected these changes and articulated their significance as he strove to understand their implications for philosophy, for education, and for everyday life.

As important as the Civil War (1860–1865) was in the rebirth of the nation, Dewey came to understand that it had not fulfilled Lincoln's promise of a rebirth of freedom. Women still could not vote; industrial workers were exploited; immigrants were discriminated against and oppressed, while Blacks were systematically terrorized.

Like Karl Marx, Dewey felt that the new industrial age provided liberating possibilities, and like Marx too, Dewey understood that there were many roadblocks that needed to be addressed before these possibilities could be realized. He rejected traditional philosophy because of its antiscience bias and pointless quest for certainty; he criticized the schools of his day for their outdated methods; he objected to the irrational authoritarianism of religion, and he condemned the selfish exploitation of labor by profit-hungry capitalists. Yet Dewey believed that these were but roadblocks to the fulfillment of democracy, roadblocks that could be removed by educational reform and the exercise of social intelligence. This belief would be sorely tested during his lifetime.

Dewey's Early Life and the Development of His Thought

In 1884, Dewey received his doctorate from Johns Hopkins University, the first research university in the United States, which was based on the German model. He had studied under the neo-Hegelian G. Sylvester Morris (1840–1889) and was heavily influenced by Hegelian idealism. But whereas Hegel (1770–1831) saw human history as a predetermined unfolding of an already present destiny, Dewey would soon come to embrace the more open-ended, probabilistic understanding of life advanced in different ways by the naturalist Charles Darwin (1809–1882) and by American pragmatists such as William James (1842–1910) and Charles S. Peirce (1839–1914).

After publishing his first article in the *Journal of Speculative Philosophy*, edited by the prominent Hegelian educator W. T. Harris (1835–1909), and completing a dissertation on Kant, Dewey took his first teaching position as an associate professor at the University of Michigan in 1884. In 1894, he became head of the Department of Philosophy, Psychology, and Pedagogy at the newly founded University of Chicago, where he also served as director of the University Laboratory School.

In Chicago, influenced by the social reformer Jane Addams (1860–1935) as well as by his wife Alice (1859–1927), who served as principal of the Laboratory School, Dewey began to address the condition of immigrants and industrial workers. In 1904, Dewey resigned from the University of Chicago after a bitter and irreconcilable dispute with its first president, William Rainey Harper, over Dewey's control of the expanded Laboratory School and the unexpected firing of his wife. He was quickly hired by Columbia University, where he had a position both in the philosophy department and at Teachers College. He retired from Columbia in 1930 but continued to hold an office there until his death in 1952. During his life, Dewey's influence spread throughout the world; his works were translated into many languages, including Chinese, Japanese, and Turkish.

Dewey and Pragmatism

In addition to Darwin, the main influences on Dewey's mature thought were the American pragmatists Charles Peirce and William James, along with Dewey's colleague the sociologist George Herbert Mead (1863–1931). Pragmatism, which flourished from the late 1800s to the 1950s, was a response

to the rapid changes in American society in the post–Civil War period. It emphasized science and experimentation while de-emphasizing traditional metaphysics and, in Dewey's terms, "the quest for certainty." Pragmatism broke from traditional philosophy by denying that truth could be construed as a claim that lined up some inner mental event, such as ideas, with some pure and simple external reality. Rather, the test of truth, or what Dewey would refer to as warranted assertibility, was attained through the systematic, ongoing, self-corrective process of science.

The key to pragmatism was first laid down by Peirce when he affirmed that beliefs are simply rules for action. To say, for example, that *X* is harder than *Y* simply means that *X* can scratch *Y* and that *Y* cannot scratch *X*. James (1991) extended Peirce's ideas about meaning into a general pragmatic method: The pragmatic method means "the attitude of looking away from first things, principles, 'categories' supposed necessities; and looking towards last things, fruits, consequences, facts" (p. 27). For Dewey, thought is initiated by the problems we confront and is tested by our success or failure in confronting them. A problem arises out of a disruption in our habituated response that interrupts the flow of activity, producing a felt tension. Thinking is then the systematic process of deliberation that seeks to overcome this disruption and relieve this tension through inquiry. Reason is a tool that enables us to solve problems, to renew experience, to get on with life, and to reweave the flow of activity.

Thinking then entails both a conservative and a liberating element. It is liberating insofar as it projects alternatives and allows us to act on the most promising way to remove obstacles and to renew the flow of experience. It is conservative insofar as it connects these alternatives and evaluates them not only by how well they remove the roadblock but also by how well they cohere with the network of other habits that constitutes a self, and by how consistent the new beliefs are with prior beliefs and habits that are not up for consideration at the present. Thinking bridges the old and new. Should the new belief be too radical, it is in danger of being impractical utopianism. Should it be too conservative, it would encourage repeating dysfunctional and self-defeating behaviors.

Dewey as Philosopher

Dewey was both a philosopher and a public intellectual. He acted on his belief that philosophy should not just address the problems of philosophers, as he believed had been the preoccupation of philosophers in the past. At a time when science was largely associated with the physical and biological realms, he argued that the methods and spirit of science be extended to the social world as well. He argued that philosophy's concern must be the "problems of men" informed by science, for the sake of individual growth and enriched democracy. Traditional philosophy's quest for certainty and absolute truth should be abandoned, and replaced by whatever science will allow us to claim and however long it will allow us to claim it.

Dewey's educational and social philosophies were directly linked to his unique understanding of both science and democracy and of the possibilities that they have to enhance the life of individuals. For Dewey, the importance of science was more than its findings. Science suggested both a way of thinking and a way of being, and each he felt was essential for democracy. As a way of thinking, science was seen as a process of systematically reflecting on and refining belief in to improve individual experience and social life. As a way of being, science involved a community engaged in reflective thought, where evidence is public and available for all to see and where a careful consideration of evidence will be used to decide differences and formulate consensus. Essential to them both was a certain kind of temperament, an emotional spirit that is not only open and inquiring but also critical.

Dewey rejected the passive psychology inherited from empiricists like John Locke (1632–1704) and the view that knowledge consisted of imprinting sensations on the mind, conceived of as a blank slate. The problem with this view, according to Dewey, was both philosophical—it had an inaccurate understanding of human conduct—and practical—it spawned destructive social forms and led to inhuman working conditions, economic uncertainty, and destructive educational practices. Dewey rejected the view that human beings were blank slates waiting for experience to write its lessons on them. Humans were not simply passive and inactive beings driven toward pleasure and away from pain. They instead were active agents engaged in soliciting the cooperation of their environment, including their human environment, to solve problems and enhance self-control. Knowing involved an engagement with the world as humans seek to control experience for the sake of richer experience. Rational deliberation, as a rehearsal of different possible courses of action,

engages concepts to promote control. Good concepts are not to be understood as accurate representations of a world "out there" but are tools that enable us to engage the world in more and more predictable and effective ways. Concepts are a lot like shovels and hammers, tools that enable us to get on with activity when obstructions bar our way. And just as we seek new tools when hammers and shovels are not sufficient, so too do we engage new concepts when old ones are inadequate to the task. Moreover, ideas not only help us reorder our own activities, they are ways of redirecting ourselves, of rethinking our own goals and responses to them, and thus of reshaping our own character. And what is true of the individual is also true of the community. In contrast to social Darwinists, who believed that Darwin's notion of natural selection required a competition "red in tooth and claw," in which concern for one's fellows was a weakness that would result in individual or even species extinction, Dewey argued that cooperation enabled humans to control nature and survive and was indeed the foundation of the success of our species. Dewey's liberalism was thus founded not on the selfish individualism of Thomas Hobbes (1588–1679) or on the indifferent individualism of Locke but on a new social individualism where the aim of society is to enhance the unique qualities and potential of each individual and the aim of each individual is to advance the potential for social cooperation.

Yet if Dewey differed from the strict social Darwinists, who saw having traditional moral ideals as weakness, so too did he differ from those who believed that moral and ethical principles were absolutes that could bend to neither time nor events. Hence, Dewey ran afoul of religious as well as biological absolutists—of those who thought moral ideals were absolute and unchanging as well as those who held that they were self-defeating. For the latter, his relativism was as bad as the former's nihilism, while for the former, it was as delusional as the latter's absolutism. Yet Dewey was simply recognizing that different times yielded different opportunities and that different opportunities required different rules of conduct.

For Dewey, the danger for his time was rampant individualism, which he saw as an outgrowth of the old liberalism, a philosophy that Dewey felt had once serviced human need and aided the development of human potential but had now run its course. Now the old liberalism had become a rationalization for economic uncertainty and abusive labor practices,

a justification for laissez-faire competition between individuals (if not corporations), an ideology of the economically powerful. In short, Dewey felt that it had become a theory at the service of the rich, justifying destructive competition and blocking opportunities for constructive coordination and the release of human potential that advances in science and technology made possible. Of course, Dewey was not the only theorist to object to the trajectory of liberalism. Karl Marx had a similar insight. However, whereas in Marx's thought progress would come only through revolution, Dewey placed his hope in democracy, education, and the method of science.

Dewey's Philosophy of Education

Dewey's educational theory was formed in the late 19th century during a period of great turmoil about the future of traditional education. An increasing number of states in the United States were making education compulsory until the age of 16 (this level of education had been rare just a few years before); immigration was increasing at a rapid rate, and immigrants were arriving from more diverse areas; working-class children were attending school in ever greater numbers as America was undergoing the transformation from a rural farming society to an urban industrial one. These changes were accompanied by the growing attack on the traditional curriculum, an attack launched by educators such as Francis Parker, by popular journalists such as the muckraker Joseph Mayer Rice, and by respected experimentalists such as E. L. Thorndike, a colleague of Dewey's at Columbia.

As an educational theorist, Dewey straddled two competing standpoints. On one side was W. T. Harris (1835–1909), who advocated academic rigor and subject matter proficiency. For Harris, these were the keys to national prominence and power. On the other side were educators such as Francis Parker (1837–1902), often called the father of progressive education, who romanticized childhood while advocating schools that drew on the natural interest of the child for their motivational energy rather than a strict discipline regime. Dewey steered a middle and experimental course. Like Parker, he saw the child as naturally active and interested, but he believed that this activity needed to be focused and made more thoughtful and that the child's interests needed to be cultivated. Hence, he agreed to some extent with Harris about the necessity of school subjects like history, geography, and science.

Yet whereas Harris emphasized the connection between subject matter and national power, Dewey emphasized their importance to the growth of the child and social progress. These aims determined his understanding of both content and method. For Dewey, subject matter needed to be taught for the sake of enhancing the student's experience, including experience gained by an appreciation of the aesthetics of the disciplines and the value of inquiry. Hence, the right kind of discipline was the one that attached the child's natural interests to the subject matter. It was socially supported self-discipline in the service of growth, or the increased control over the quality of experience. Dewey was making a philosophical point—that method and subject matter can be separated only for the purpose of analysis—but he was also making a political one.

At the time when Dewey began writing about education, there was a growing mismatch between the character of the students in public schools and the largely irrelevant and often mind-deadening methods of an expanding educational system. For Dewey, the problem was not just to attend to the interests of the child, as it was for Parker. It was also to promote shared interests, a sense of the value of participatory democracy and social cooperation. He was concerned about democratic social cohesion and how it might be achieved given the tremendous demographic and social changes of the time. Drawing on his experience in rural Vermont, Dewey believed that in the past, social cohesion had been accomplished through the transmission of communal aims through the face-to-face interaction of different generations in rural communities and their networks of local markets and churches.

Dewey believed that the link between means and ends was much easier for the child to understand when work and life were linked together—as he felt they had been earlier on the farm in a place like rural Vermont. Children learned to understand the long-term consequences of their action through planting a crop, caring for it, harvesting it, and using it. Moreover, they learned the "moral" value of their work because they saw its effect on the family. Life had a natural and transparent rhythm where the consequences of action were clear. In Dewey's perhaps idealized view, work had been tied to home life, and children learned how to execute their future roles by working alongside their mothers and fathers and by being slowly inducted into a caring community of family, friends, and neighbors. Industrial society changed much of this, and

because many children no longer worked alongside their parents and because more specialized division of labor took work out of the home, making its method and meaning less transparent, Dewey feared that the connection between learning and doing was being lost for children. His educational theory was intended to maintain this connection in the context of formal schooling. In the lab school, activities like sewing, weaving, and the like introduced children to their social heritage and initiated more thoughtful inquiries. Children were taught no longer to take the fruits of everyday life for granted but rather to understand their source in a deep, experiential way. For example, they might pluck cotton out of cotton bolls, card it, spin it, weave it, dye it, and then reflect on the importance of the cotton gin and on why historically wool was used earlier than cotton. This activity then might be connected to lessons in history, geography, science, and the like.

Critics complained that children were undisciplined and that there was too much play in Dewey's educational proposals. However, for Dewey the distinction between play and work was an overly rigid division impoverishing the ideas of both play and work. He contended that the two terms should refer to the immediacy or the distance of the fruition of an activity; in play, the fruition was close, and in work, it was more distant. Through play, he felt that he could both introduce subject matter in a meaningful way and promote the social role of the school. As children became older, the distance between act and fruition could hopefully become greater. Yet the opposite of play for Dewey was not work but meaningless labor, just as the opposite of work is meaningless frivolity.

Dewey suggested, perhaps somewhat naively, that earlier communities—like the Burlington of his childhood—had been models of participatory democracy, and he was hoping to find a substitute in the public schools that he hoped might spur increased participation and democratization in the workplace. Dewey looked forward to a time when teachers, committed to and trained in democratic pedagogy, would become the new moral guides educating future citizens in the ways of participatory democracy. He also believed that many of the conflicts that immigrants brought with them from Europe—some religious, some rooted in national differences—could be assuaged by a democratic public education system that promoted scientific values and social consensus and through these the continual formation and reformation of both individuals

and their communities. His test for democracy was both social and individual. A democratic education promoted the growth and variety of shared interests among different individuals as well as the freedom to associate with other groups in the fullest possible ways.

The concern to tie understanding to interest and action did not mean for Dewey, as some of his critics have alleged, that schools should ignore traditional subjects for the sake of the child's momentary interest. If there was a problem, it was not with the subjects themselves but with the way they were packaged by curriculum developers, who presented to students a refined, abstract finished product based on adult understandings, without concern for the way this presentation comported with the students' need for meaning and significance. Educators needed to understand that the child's interest did not always correspond to the way traditionalists had carved up the world—into discrete subjects—and that the psychology of learning must inform the logic of the subject matter.

This educational program was backed up by more than just common sense. It was also supported by powerful psychological insight about the interrelation between a self and its environment, an insight expressed in Dewey's groundbreaking article "The Reflex Arc," in which he criticized the rigid distinction between sensation, thought, and act by arguing that sensory stimulus, central connections, and motor responses are not separate and complete entities in themselves but are best understood as functions within the single concrete whole, where each serves to influence the other and where the unity of the whole "determines the values of its constitutive factors." In other words, a coordinated act flows; its longer- and shorter-run aspects inform one another—it is not just a series of disjointed parts. Its parts reinforce one another in an organic way, and means and ends are connected in an efficient and satisfying way. The article served, by implication, to challenge the view that students were passive learners who, like animals, when provided with the right reinforcement (positive or negative), would learn whatever was required of them. Rather, when educated in this way, they would grow into adults who tolerate meaningless work and illegitimate power.

Dewey's Educational Writing

Dewey wrote many books and articles on education. Among the most important books are *School and Society* (1899/1990), *The Child and the Curriculum* (1902), *My Pedagogical Creed* (1897), *Democracy and Education* (1916), *Schools of Tomorrow* (1915, with Evelyn Dewey), and *Experience and Education* (1938). In addition, he wrote numerous articles on topics such as coeducation, intelligence tests, and vocational education. While the emphasis changed depending on the circumstance and the audience, the core message was remarkably consistent. Democracy requires a democratic education, and a democratic education must be predicated on encouraging a spirit of community and mutual inquiry.

For Dewey, education is the process by which immature individuals come to participate in the social consciousness of the human race. The process begins at birth and lasts a lifetime. Hence, for Dewey, education is both wider and deeper than formal schooling and includes more than simply the transmission of the vocational and life skills that one requires to get along. It also involves children coming to consciousness of the inherited skills of the group as they take on its aims as their own and identify with its history and its fate. Because education is nothing less than the process by which a community renews itself, it is also the concern of the entire community. This is the reason for Dewey's much-quoted statement found early in *School and Society*: "What the best and wisest parent wants for his own child, that must the community want for all of its children" (1899/1990, p. 7).

Dewey distinguished between informal education, which is the renewal of social life from one generation to another by social participation, and formal schooling, which is a specialized formal institution designed to regulate transmission for some purpose. Formal schools come into being when society grows in complexity and when many of its traditions are stored in written texts. The school, Dewey tells us, is an agency that is consciously designed to do what is done more informally in simpler forms of social life in the family and community.

Like most progressives, Dewey was a harsh critic of many of the practices of the schools of his time. Existing schools worked to prepare students for some future life while removing subjects like math, science, geography, and history from life experience. Skills were taught as, say, one might teach students how to hold and swing a hammer without ever telling them about nails. Subjects were presented as fixed points for the child to reach, disconnected from the child's own experience. In contrast, Dewey believed that with proper guidance school subjects

could be connected to the child's ongoing everyday experience, serving to inform and deepen it while transforming the child's interests and connecting it to that of the wider community. He believed that the time was ripe for a new progressive approach, such as was practiced in his own laboratory school at Chicago. In *Schools of Tomorrow* (1915), he and his daughter Evelyn provided a survey of a number of existing experimental schools that manifested some aspect of the progressive idea.

In *Democracy and Education* (1916), Dewey's most comprehensive work on education, he argued that education and democracy are inseparable. They are intermingled forms of associative living in which growth, individual and communal, is primary. Dewey proposed that education is the process of social renewal, where social skills are reproduced in each new generation and where each new generation comes to share in the interests of the group. Not all societies require formal education. Where the division of labor is simple and where work is carried on in the home, children learn the skills they need informally without systematic instruction, and through face-to-face encounters with adults, they come to identify the community's interest as their own.

Formal schooling becomes necessary as the division of labor intensifies, as work is separated from the home, and as skills become more and more complex. Yet as work becomes more complex, as children spend less time at home, and as the division of labor increases, the danger of communal disengagement becomes greater, and the connection between learning and doing threatens to become more distant. *Democracy and Education* serves as a roadmap for reconnecting learning and interest. It is also a roadmap for reconstructing the idea of democracy from a way of governing to a way of living. For Dewey, the goodness of a society is measured by how numerous are the connections between its members, and how open its members are to the formation of new interests and new associations.

Although Dewey often made the point that education was not preparation for some distant future, he did not mean that education should be indifferent to the capacity of the child to function later in life. He meant that preparation for life must not defer meaning to some future time. It must begin by taking into account the experiences that children bring to the school from their life outside. For Dewey, if the active nature of the child is to be preserved and her experience deepened, then the subject matter must connect in some organic way to the ongoing life experience of the child. The danger of strictly formal instruction is that the connection between the child's experience and the significance of the subject will be obscured, and in the process curiosity will die. The teacher's task is to provide an organic connection between the child's past and present experience and the subject that the child is expected to understand. The subject matter is to be used to link the child's present concerns to future enhanced powers, control, and enriched experience.

The School as a Form of Social Life and Renewal

There is some question whether Dewey changed his understanding of education over time. His early optimism that schools could be at the forefront of progressive change was developed at a time of increasing immigration and as the country was changing from a rural, farming society to an urban, industrial one. Moreover, *My Pedagogical Creed* (1897) was published before compulsory education to the age of 16 became universal, and while the country was still in transition. While he may never have lost hope that the school would become the principal agent of progressive social change, his last major work on education, *Experience and Education* (1938), was more critical of progressive educational practices as they had developed, and this book is often seen as attempting to correct the balance between emphasis on the interests of the child and concern with the importance of the subject matter. In point of fact, Dewey always acknowledged the importance of both, but at different times he would highlight one over the other. Hence, for example, both *The Child and the Curriculum* (1902) and *School and Society* (1899/1990) were written while Dewey was involved with the Laboratory School at the University of Chicago, and they describe and justify the work that went on in that school, with its child-centered approach to learning. After he left Chicago and the Lab School, Dewey continued to write about education and to develop his ideas about its relation to democracy, but with greater concern for its implication for the future of a democratic nation. Certainly there were many changes in emphasis as Dewey responded to the changing times, but the basic themes about the need to connect ends and means, subject matter and method, individual and society, work and play remain throughout.

The Influence of Dewey Today

After his death, Dewey's influence on American philosophy declined as philosophers looked to England and continental Europe for new inspiration. Progressive education suffered a similar fate as its ideas came under criticism as being responsible for America's purportedly weakened position in the Cold War. Many critics believed that progressive education was somehow inconsistent with high-level education in math, science, engineering, and foreign languages, areas thought most essential for Cold War conflict. In more recent years, Dewey and progressive educators have been criticized for setting in motion an educational system that weakens the country's economic prowess. Many of these claims rest on a caricature, but they have fueled much recent educational reform. This reform promotes greater standardization of schools, with more rigid discipline, standardized tests, and teacher accountability. Nevertheless, Dewey's influence, while more diffuse, still has considerable standing among educational theorists and can be found in movements as diverse as the open education movement of the 1970s and the feminist and critical pedagogy movements of today. Today, Dewey's ideas form the backbone, often unacknowledged, of the "loyal opposition" to government-directed education policy and serve as a reminder that education must serve more than the economy.

In philosophy, Dewey has also experienced a remarkable revival, in part due to the conversion of the analytic philosopher Richard Rorty to Dewey's brand of pragmatism, as well as the development by the logician Hilary Putnam of the pragmatic grounding of much of his own work. In addition, the continuing work of the Dewey Center at Southern Illinois University in Carbondale continues to maintain the Dewey legacy by maintaining his papers and supporting high-quality Dewey scholarship. Similar centers devoted to Dewey's work can also be found in other parts of the world, and every year conferences are held on pragmatism and on Dewey in a number of different countries. The title of *The European Journal of Pragmatism and American Philosophy* is an indication that Dewey's ideas are still alive throughout the world.

Walter Feinberg

See also Addams, Jane; Democratic Theory of Education; James, William; Laboratory School, University of Chicago; Mead, George Herbert; Productive Labor and Occupations: From Dewey to Makarenko; Progressive Education and Its Critics; Spectator Theory of Knowledge

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DIALOGUE

Dialogue has been seen as a form of interpersonal communication that emphasizes the open exchange of ideas and mutual respect, and it has a long history in the context of education. Plato (ca. 437 BCE to ca. 347 BCE) is credited with systematizing the genre as a form of pedagogy in his philosophical writings. This entry explores the close connection between dialogue and education, beginning with normative views that hold up dialogue as a pedagogical ideal and continuing with a review of recent critiques of dialogue that point out some of its purported limitations as an approach to teaching, particularly in multicultural settings. The entry concludes with a discussion of the practice of dialogue, exploring issues such as silence, activist versus deliberative communication, and the challenge of fostering open, responsive communicative relations within educational settings.

The Normative Tradition

Largely through the legacy of Plato's philosophical dialogues, and the deference accorded to something called "the Socratic method," dialogue has come to hold a central place in Western views on education.

The idea behind the Socratic approach to dialogue, perhaps best exemplified in the *Meno*, is that a guided process of inquiry will secure a grasp of knowledge that is not dependent on the status of authority or tradition: that dialogue teaches how to think in a way that produces an autonomous, skeptical learner. To what extent we see Socrates consistently teach this way in the dialogues, whether this approach to teaching is properly considered a "method," and whether it is a single unified method have all come into question. Nevertheless, a broad commitment to teaching through dialogical questioning has been derived from this canonical source.

More recently, the Brazilian educator Paulo Freire (1921–1997) added a new dimension to this tradition: the idea that dialogical teaching is also more democratic, more egalitarian, more humane, and more liberating (compared with more didactic and, for Freire, oppressive, "monological" modes of instruction). His ideas add to the epistemological weight Socrates gave to pedagogical dialogue an additional quality of political and ethical obligation, namely, that a teacher committed to progressive values *must* rely on dialogical methods.

The Critical Tradition

This normative stance toward dialogue has come under criticism from the feminist, poststructural, and postcolonial perspectives. Perhaps the most influential of these criticisms has come from Elizabeth Ellsworth (1989, 1997). The central issue raised by her work can be described as interrogating the *unconscious* of dialogue. The aim is to look beneath the surface of overt meanings and expressed intentions, to examine what is *not* being acknowledged or talked about. The danger of dialogue, which represents itself as an open conversation in which anyone can speak and any topic can be broached, is that certain people may not be speaking, certain things may not be spoken—or may not even be speakable in the terms tacitly valorized by the dialogue. Precisely because the surface level of the engagement *is* so apparently reasonable, inclusive, and well intentioned, what gets left out, or who gets left out, remains not only hidden but is subtly denigrated. If you cannot (or will not) express yourself in this manner, the fault lies with you. In pointing out what is *not* open about dialogue, Ellsworth and other critics want to reveal the reverse side of ostensibly "inclusive" educational practices, such as dialogue, to expose what is, in practice, *exclusive* about them.

Alison Jones (1999, 2004) highlights a related problem of dialogue in contexts of cultural difference. The *desire for dialogue*, as she puts it, can carry its own kinds of coercive influence. When people from different backgrounds try to discuss their experiences and differences—as often happens in multicultural classrooms—they are put in asymmetrical positions of risk and self-disclosure. Who are these conversations for, and whom do they benefit? When multicultural educators talk about the virtues of cross-cultural understanding, this is tilted almost always in the direction of the supposed benefits of dominant groups coming to better understand members of nondominant groups. Jones challenges this aspiration. For one thing, members of nondominant groups often have to expend much more time and effort explaining themselves to those who belong to dominant groups than vice versa; indeed, members of nondominant groups may already understand a great deal about the dominant culture. There can even be a kind of voyeurism: "Dialogue and recognition of difference turn out to be access for dominant groups to the thoughts, cultures, lives of others." For Jones (2004),

> the desire for the embodied other . . . may also be a desire for redemption, or forgiveness, on behalf of the white students. . . . The dominant group seeks its *own* inclusion by being rescued from its inability to hear the voices of the marginalized. (pp. 64–65)

In such cases, Jones says, members of nondominant groups may hold back from participating in the conversation, remaining silent as a strategy of self-protection or even seeking to withdraw from the common classroom space entirely.

The Practice of Dialogue

Standing back from these particular criticisms, what has occurred in the educational literature is a move away from an idealized, normative conception of dialogue to a cultural politics of dialogue; dialogue is neither a good nor a bad thing in itself, and the decision about whether to teach with dialogue, when, and with whom needs to be made within a broader analysis of power, identity, and purpose. We think of the educational context as a generally altruistic one, devoted to promoting freedom, the open expression and exploration of ideas, and personal as well as group development and advancement—for all participants. But when these matters are viewed within a recognition of diverse styles of communication,

diverse identities, and, most of all, diverse political interests and purposes, good intentions derived from even the most progressive sentiments no longer suffice. Suddenly, dialogue reappears as a potentially quite restrictive, possibly even hegemonic norm and constraint. The educational purposes of promoting mutual understanding, tolerance, and empathy, while clearly of value, may not be the overriding ideal in all circumstances. The interests of all students may not be servable all at the same time. One's own self-image as a teacher, with one's own identity, interests, and purposes, may come into question as well.

Several specific problems, then, arise for educators: First, how can a normative framework for dialogue accommodate diverse cultural styles of expression? If one's goal is to encourage participation in a joint communicative process of discovery, it seems contradictory to insist that this must occur on one's own terms. If one's goal is to encourage cross-cultural understanding and empathy, it seems contradictory to insist that others must adopt one's own preferred discursive styles (or even one's own language). On the other hand, without some shared basis of communicative norms, how can any engagement take place at all?

Second, as Iris Young (2002) has pointed out, there is a difference between *deliberative* and *activist* modes of communication. Deliberative communication is oriented toward reasonable engagement, negotiation, compromise, and a fair exploration of all sides of an issue. Activist communication is about making a point that needs to be made, even if it is rude, disruptive, and impolite. The goal is not to persuade but to challenge, to confront the other. To insist that such activist utterances be converted into the careful, balanced language and the reasonable tone of a deliberative engagement is to miss what is important about utterances such as speech acts; it is to defuse them of part of their purpose and impact. In pedagogical dialogue, the reasonable and deliberative mode is for obvious and mostly legitimate reasons privileged; the activist mode is not oriented toward the aspirations of understanding and consensus, which dialogue generally pursues. But even in pedagogical settings, these sorts of activist challenges, between student and teacher or between students, have a place and a potential educational value.

Third, returning to Alison Jones's point, when is it legitimate for educators to allow some groups to withdraw from dialogue with others, to segregate into culturally similar and like-minded groups in which they do not have to encounter others? She argues for the creation of separate spaces in the classroom where members of particular groups can speak safely with others who share common experiences and backgrounds, where they do not have to explain themselves to others or reeducate them at the cost of their own effort and trouble. Educators often invoke goals like "dialogue *across* differences," which assume that the purpose of dialogue is to achieve connections of understanding and agreement—which may be worthy goals in many educational settings but cannot be taken as always unproblematic, even when they spring from good intentions (see Burbules & Rice, 1991).

Fourth, as Huey-li Li (2004) and others have pointed out, there is the issue of silence. Many critics regard the issue of silence either through the lens of asymmetrical power (groups or individuals are "silenced") or as a pointed refusal to participate, as active withdrawal from participation. Li wants to argue instead for the *expressive* possibilities of silence—it is not the opposite of speech, but rather, silence and speech form a "continuum." There are different kinds of silence, she points out, and those truly interested in cross-cultural understanding need to take on the burden of hearing what these different kinds of silence might mean. Forcing others to speak, to articulate what they think and feel in explicit words, is in Li's phrase "silencing silence," and she means this as a rebuke to well-intended teachers who believe that they are serving the interests of those groups by "privileging their voices" or continually pressing them to speak up and contribute. Silences are of different types and mean different things. As Li makes it clear, assaying silence and deciding whether it is educationally pernicious or beneficial requires attention to numerous cultural and situational specifics, and it cannot be diagnosed with broad, dichotomous categories (either one "has voice" or one "is silenced"). A significant question here, then, is this: How can a teacher know *what kind* of silence she or he is dealing with? *Whose* silence is a cause for concern, and why? Li's central point is that our tendency to denigrate silence, or to see it automatically as a sign of some deeper problem, overly valorizes the chatty dimensions of participation; and in this sense, it poses a substantial challenge to the ways we think about dialogue.

The critical analyses presented here regard the development of dialogical relations as itself a political project, one in which there may be good reasons to resist or question even the terms and conditions

of dialogue itself. But at the same time, politics is always *for* something, and it is difficult to imagine any conception of social justice that does not at some level seek dialogue and more open, responsive communicative relations as an end point—even if in the short term encouraging dialogue is not the best way to pursue it. Hence, even challenges to dialogue must entail, at some level, a commitment to dialogue itself.

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See also Freire, Paulo: *Pedagogy of the Oppressed* and Critical Pedagogy; Socrates and Socratic Dialogue

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DILTHEY, WILHELM

See Hermeneutics

DISCIPLINARITY

Disciplinarity, with the contested forms inter-, cross-, and multi-, is the approach to an academic field of knowledge through disciplines, which are conceptualized as being discrete, bounded, academic traditions of knowledge creation and knowledge dissemination. The term *subject*, also *knowledge field*, is used instead of *discipline* when the subject area is defined for or focused on a purpose (e.g., in compulsory education syllabuses, for projects addressing a problem requiring multiple approaches, and in teaching and the scholarship of teaching). This entry discusses the history of disciplinarity, types of discipline-based knowledge, and challenges to the boundaries of disciplines and the disciplinary structure of higher education.

With roots in the medieval university, maintained by prestigious learned societies, and strengthened by research funding and evaluations based on peer review, the appellation "discipline" carries connotations of prestige, tradition, mastery of knowledge and also of students, and, more darkly, control. A discipline, as a disciplined community of disciples, thus came to be distinguished from a subject area, which, rather, is often regarded as a field of study open to all and to any approach. A discipline is more often seen as working within and controlling what Kuhn called a "paradigm"—setting the research agenda, the appropriate methods, and the personnel who are equipped to work within it.

Discipline-based knowledge has been categorized as "hard" or "soft"—where "hard" means having tightly agreed-on theory and methodology, and a rule- and law-based research agenda (e.g., mathematics), and "soft" means tolerance of multiple approaches, methodologies, and models of argument, explanation, and evidence (e.g., the humanities). It has also been categorized as "pure" or "applied," where "pure" is discipline driven and shaped by its research agenda (e.g., physics) and "applied" is one where accreditation and purpose rest outside the university (as is the case with medicine). So education and its contributing disciplines, such as educational psychology and sociology, are "soft–applied," and philosophy is "soft–pure."

The sociolinguist Bernstein influentially divided knowledge processes into three sites: (1) of *production*, where new knowledge is constructed and positioned (e.g., in disciplinary research); (2) of *recontextualization*, where new knowledge discourses are appropriated and re-embedded to become educational knowledge (forming the basis of curricula and assessment); and (3) of *reproduction*, the classroom where teaching and learning take place. Such a model underlies calls for research-informed or research-based teaching.

Disciplines also have been studied as intellectual "tribes": as communities of academics, identified by citation and cocitation practices in research journals, concerned with researching and teaching historically distinct subject areas and developing, validating, peer-reviewing, and disseminating discrete bodies of knowledge.

Further light also has been thrown on disciplines by analyzing the different knowledge-making processes and academic literacy practices displayed in their top journals, for example, by analyzing arguments, the use of evidence, the authorities cited, and so on. Such academic literacies and discourse studies are concerned to render transparent the disciplinary rules (rhetorical, epistemological, stylistic, and presentational) that those seeking to enter must follow. Thus, academic literacies are important for research students who must conform, but their status is contested by those who see education as a process of equipping students to transform knowledge and who see disciplines as potentially transformational rather than merely as transmitters of knowledge: The "writing in the disciplines" movement, for example, influentially argued that the discipline is made by each writer of that discipline, professor and student alike; from this perspective, a discipline is viewed not as an institution but as a knowledge-creating community, and academic writing is regarded as knowledge- and meaning making, not merely a knowledge-demonstrating and -disseminating process.

Disciplinary studies also generate argument about the state and status of particular areas of knowledge, for example, in cases where a discipline crosses boundaries or encompasses very different knowledge-making traditions. Area, cultural, gender, and many other studies cover specific disciplinary knowledge areas but may encompass a variety of disciplinary approaches, including "pure" and "applied," experimental and theoretical, and convergent and divergent methodologies.

Challenges to the hegemony of disciplines come from those funding research on deep or so-called wicked problems, where innovative thinking is required and where inter- and cross-disciplinary approaches are favored. (All these are contested terms; *interdisciplinarity* can usefully be seen as combining and using research methods, forms of inquiry, and agenda from any discipline; *multidisciplinarity* is teamwork drawing on researchers from several disciplines; and *cross-disciplinarity* is applying the methods or agenda of one discipline to the knowledge base of another.)

Finally, there are challenges to the disciplinary structure of higher education, from those who see the university as a site of transformation rather than of transmission of academic knowledge and from educationalists concerned with Freirian, critical, or other "liberating" pedagogies. Such scholars want to move away from disciplinary organization, which they see as producing a constricting and a reproducing environment. There are two radical education-based disciplinary models that have emerged within the field of higher education and have implications for both disciplinary epistemology and pedagogy: "threshold concepts and troublesome knowledge" and "signature pedagogies." The first challenges academics within disciplines to build the curriculum around the sequential comprehension of threshold concepts (these not only are core concepts, but they are ones that challenge contemporary viewpoints and thus can be disturbing to the student, who might prefer to stay with his or her existing disciplinary paradigm). The second challenges academics to define their discipline as a set of professional practices, similar, for example, to law and medicine, which are defined not by subject content but by the core practice, which must be taught and in which students must qualify. Such a focus on disciplinary processes—writing, teaching, learning, assessment—models those who work within a discipline as sharing a common craft, as forming a "community of practice." (This is a model from cognitive anthropology—an approach within cultural anthropology that uses the methods and theories of the cognitive sciences—that returns academics to their medieval origin as a "mastery," a *maiestri*—a guild of masters.)

Conclusion

The contemporary field of educational practice tends to deal with disciplines as academic areas and academic communities held together by common interests and processes (e.g., teaching and setting assessment criteria, learning outcomes, curricular agenda, and priorities) rather than by a common epistemology. Disciplines are seen as academic research communities with gatekeeping and peer-review duties and responsibilities; and academic identity is seen as rooted in and fostered, or constricted and enervated, by disciplinarity.

But as knowledge has become deregulated, with investment in open science and with knowledge being produced outside the university, academic

identity faces the risk of becoming more fragmented. Perhaps this will force the focus to shift back to disciplines as academic homes, as communities of academic, pedagogic, and epistemological practice.

Jan Parker

See also Communities of Learners; *Deschooling Society*: Ivan Illich; Knowledge, Structure of: From Aristotle to Bruner and Hirst; Kuhn, Thomas S.

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DISCOURSE ANALYSIS

The study of discourse has a long and deep history and can be traced to language philosophers and social theorists such as Mikhail Bakhtin, W. E. B. Du Bois, Michel Pêcheux, and Ludwig Wittgenstein. Both a theory and a method, discourse analysis in educational research grew out of the traditions of ethnography of communication and interactional sociolinguistics, and the study of social signs and signification (semiotics). Researchers in these traditions are concerned with how discourse (defined as language and other forms of social information or meaning transmission) is used in context to accomplish educational practices. This entry discusses the varieties of discourse analysis and how they are used in education to study the way social patterns in society are reflected within schools.

There has been much scholarship in educational research that includes discourse analysis; indeed, teaching and learning are communicative events, and it stands to reason that discourse analysis would be useful to analyze the ways in which texts, talk, and other semiotic interactions are constructed across time and contexts. Discourse studies and educational research are also both traditions that address problems through a range of theoretical perspectives. Many of the problems that are addressed have to do with inequality and power. Discourse analysis provides the conceptual and methodological tools for addressing the complexity of educational practices in an increasingly globalized world.

Discourse analysis has been set to work within the field of education on a variety of topics, from educational policy, teacher education, and literacy education to science, math and technology education, educational media, language policies, and academic discourses. Discourse analysis takes as its object of study any meaning-making mode (image, speech, gestures, writing, three-dimensional forms) and draws on analytic methods to understand the relationships between discourse processes and social practices. And while various traditions have different orientations, they have similar views about discourse. That is, discourse is viewed as a multimodal social practice, situated within social, historical, and political contexts. Discourse both reflects and constructs the social world and cannot be restricted to a description of grammatical forms stripped from the function and contexts in which it belongs. Discourse analysis attends to the discursive practices that constitute communicative events as well as the larger systems of meaning—or the social practices—that are constructed, transformed, or resisted through these practices.

There are many varieties of discourse analysis, including narrative analysis, building tasks analysis, public-consultative discourse analysis, critical discourse analysis, positive discourse analysis, multimodal discourse analysis, cognitive approaches to discourse analysis, and so on. To explore some of the diversity that exists within discourse studies, the next section presents some of the most common approaches to discourse analysis in educational research.

Narrative Analysis

Jerome Bruner reminds us that we narrate our experiences, choosing protagonists, listeners, and readers and situating ourselves at the nexus of the past, present, and future. Narratives can be oral or written and can take the form of a variety of genres, such as letters, legal testimony, dance, and memoir. Approaches to narrative analysis are concerned with how, through narratives, people represent their goals, stances, and ideas and, in turn, construct the world. Catherine Kohler Riessman suggests that there are four models of narrative analysis: (1) thematic analyses, (2) structural analyses, (3) interactional analyses, and (4) performative analyses.

A thematic analysis includes a focus on the content of the narrative. This approach is often useful to examine the variation between narratives among a group of narratives about the same topic. The second model is a structural analysis, which has a stronger focus on how the story is told, rather than what is told. Examples of structural analysis vary depending on the form of the narrative. For example, many narratives fit a temporal story form and can be analyzed by William Labov and Joshua Waletsky's method of identifying clauses and their functions, but others do not fit this temporal form and need different frameworks based on how the narrative is constructed through the linguistic choices of the teller. An interactional analysis focuses on the interaction between the teller and the listener, and along with theme and structure, the collaborative nature of the telling is also a point of interest to the analyst. An example of this approach is found in Stanton Wortham's approach to narrative analysis. Finally, performative analysis is an approach that sees the interactional nature of narrative tellings as a performance of identity. The objective of narrative theorists is to understand how the properties of narratives are used (or function) in the creation of self and identity.

The Building Tasks Analysis

James Gee's tradition of discourse analysis, referred to as a "building tasks" analysis, draws on American anthropological linguistics, social discourse theories, and cognitive psychology. Arguably, this approach popularized discourse analysis in educational research more than any other tradition. Gee introduced the distinction between "discourse," with a lowercase *d*, or language bits, and "Discourse," with an upper case *D*, or the sociopolitical uses of language. He brings this theory to life through five related theoretical frames and a set of building tasks that illustrate how language ties to the social world.

The theoretical frameworks are (a) *situated meanings*, (b) *cultural/discourse models*, (c) *social languages*, (d) *intertextuality*, and (e) *figured worlds*. These are the social and cultural frameworks for understanding how people use language to accomplish social goals. *Situated meanings* evokes Bakhtin's notion of genres and dialogues and refers to how people make words mean something—and that meaning has historical significance and is connected to other meanings. *Cultural/discourse models* are the storylines, narratives, and explanatory frameworks that circulate in a society. *Social languages* refer to grammar and the function of language as it allows us to express socially situated identities and relationships. *Intertextuality* refers to how texts are drawn on and rearticulated within or across social practices. And *figured worlds* are the kinds of mental models that shape how people make sense of the world.

The building tasks are tools that bring the theoretical frameworks to life and include (a) *significance*, (b) *activities*, (c) *identities*, (d) *relationships*, (e) *politics*, (f) *connections*, (g) *sign systems*, and (h) *knowledge*. As people interact, they are building social relations, identities, activities, and knowledge with and through language. The building tasks are entry points that aid the analyst in constructing meaning from a network of discourse patterns. For example, *significance* indicates the ways we use language to assign meanings to things and people and make them relevant to the conversation. *Relationships* refer to how people interact with other people, texts, or Discourses. *Identities* are the ways in which language is used to create roles for particular people and make those roles important in the social space of the interaction. Each building task has a set of associated questions that guides the analyst. The discourse analyst sets out to understand how linguistic resources are used to accomplish social goals.

Critical Discourse Analysis

Critical discourse analysis focuses on how discourses are constructed as well as how they enact social relationships and social identities, with particular attention paid to dominance/oppression and liberation/justice. Some varieties of critical discourse analysis are rooted in Michael Halliday's systemic functional linguistics. This is a theory of language

that operates on the understanding that meanings are always being invented (vs. being inherited) and that people are actively creating meanings and have choices among representational systems from which to make meanings. According to systemic functional linguistics, as people create meanings, they draw on textual, ideational, and interpersonal resources. The textual organizes discourse into recognizable patterns or social practices. The ideational enacts ideas about the world from a particular perspective. The interpersonal enacts experiences of reality. Norman Fairclough's translation of these resources is genre, discourse, and style, or "ways of interacting," "ways of representing," and "ways of being," respectively. This tripartite schema is used in educational research to study how power, privilege, liberation, and justice are represented in educational spaces. A new wave of scholarship called positive discourse analysis focuses on liberation, agency, and justice instead of domination and oppression.

Multimodal Discourse Analysis

Discourse analysis has been critiqued for its emphasis on written and spoken texts as the source of meaning, often to the neglect of meanings made in other modalities. In many cases, the reach of language is insufficient for the representational work that needs to be accomplished. Teaching and learning are multimodal activities as people draw on an array of modalities, including verbal conversation, gestures, emotions, movement, rhythm and music, and composition, to make meaning. Charles S. Peirce classified signs according to the characteristic of the relation that they have to what they represent. Modes might be iconic, indexical, or symbolic. Gunther Kress views discourse as constructed through signs and symbols and as a form of social practice. The goal of multimodal discourse analysis is to describe, interpret, and explain the ways in which meaning is constructed and understood through multimodality. Multimodal discourse analysis examines the form and function of discourse and action to understand how designers (meaning makers) position themselves and are positioned by others.

New and Lingering Criticisms

Discourse analysis has blossomed in educational research. Some of the common critiques of discourse analysis are listed below. It should be noted that educational researchers using discourse analysis

have addressed some of the long-standing critiques about discourse analysis:

There is an unequal balance between social theory and method.

Analysis tends to be decontextualized, not attending to discourse histories and trajectories.

Social ideologies are read onto data rather than revealed through the data.

There is an overemphasis on domination and oppression versus liberation and freedom.

There has been little attention to learning and the nonlinguistic aspects of interaction, such as emotions and activity.

These criticisms might be seen as a point of departure for continued scholarship in the field.

Rebecca Rogers

See also Bruner, Jerome; Narrative Research; Semiotics

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Discovery Learning: Pros and Cons

Many names have been given to the methods of teaching that emphasize teaching and learning practices that actively engage students in, and help them make sense of, what they are learning; but *discovery learning* is the term that most often is used to describe such methods. The foundations of discovery learning can be traced back to the work of John Dewey about a century ago, Lev Vygotsky in the 1930s, and Jean Piaget in the 1950s; and this approach to learning

looms large in the contemporary constructivist movement. Both Dewey and Vygotsky postulated that children learned best by actively constructing their knowledge through social interaction rather than merely absorbing ideas directly. Piaget proposed that optimal learning occurs when an opposing viewpoint challenges the previous knowledge of an individual. In the 1960s, Jerome Bruner (1967) contributed work that supported the benefits of discovery learning; he found that students understood concepts better and remembered them longer when they discovered these concepts for themselves. This entry discusses what takes place in discovery learning, the ideas behind it, evidence of its effectiveness, and the advantages and disadvantages of the approach.

While the term *discovery learning* is often used as an "umbrella" term to refer to teaching and learning methods such as inquiry-based, problem-based, Socratic, or Moore method instruction, it is not intended to capture all of the characteristic features of the individual frameworks. This is also not to imply that each of these methods is equivalent. Discovery learning, however, does embody the commonality inherent to these methods in that discovery learning emphasizes a student-centered approach to instruction that engages the learner in thinking deeply about the subject under investigation. Discovery learning can be defined as a teaching and learning model in which students learn to recognize a problem, search for information relevant to the problem, develop a solution strategy, and logically justify the strategy. Five characteristics are identified by the National Academy of Sciences as essential to discovery learning models (in the sciences). It is essential that the student learner (1) be engaged by scientifically oriented questions, (2) give priority to evidence, (3) formulate explanations from evidence, (4) evaluate explanations in light of alternative explanations, and (5) communicate and justify the proposed explanations (Committee on Development of an Addendum to the National Science Education Foundation Standards on Scientific Inquiry, 2000, p. 25).

Discovery learning can be done as an individual exercise or, more commonly, as a collaborative effort in which students are immersed in a community of practice and solve problems together. In discovery learning, the instructor acts as a facilitator or mentor to guide and pace student learning and interactions. Focus is placed on students' ideas and contributions to their own learning—the model recognizes students as active learners or collaborators, developing a deep and connected understanding of their subject,

as opposed to a more passive student role as receivers of knowledge transferred to them from their instructors. The instructor also creates a classroom environment conducive to the discovery learning process by modeling what behavior is appropriate and expected as students work toward devising solutions to problems.

Thus, instructors who employ discovery-based methods have created classrooms that appear markedly different from those of their teaching colleagues (Laursen, Hassi, Hunter, Crane, & Kogan, 2010). Typically, in a classroom where discovery learning is taking place, students are involved in creating knowledge together. They are immersed in their subject, creating hypotheses or conjectures, collaborating with peers, and discussing and challenging one another's ideas. While the instructor is always available to guide and to facilitate, students are empowered to discover and to grow in knowledge either independently or together. In fact, at secondary and university undergraduate levels, discovery learning has been shown to be effective in developing students' problem-solving and communication skills (Chin, Lin, & Wang, 2009).

An essential elucidation of the ideas underlying methods such as discovery learning is found in the educational research report *How People Learn* (National Research Council, 2000, p. 68). This report promotes the concept that effective teaching strategies should incorporate some levels of metacognitive activities. These strategies are related to discovery learning in that they involve students questioning their own knowledge and understanding along with scrutinizing other students' conjectures, ideas, and solutions. Evaluating and monitoring self-progress is also a desired characteristic among students. Discovery-based methods involve the learner as an active participant in her learning, thus fostering the enhancement of metacognition skills.

Evidence in Support of Discovery Learning

Researchers investigating mathematics courses at the undergraduate level have noted that while students enrolled in a discovery-based differential equations class were better at solving conceptually oriented problems, there was no statistical difference between the two groups of students on procedurally oriented problems, in spite of the fact that this was entirely the focus of the lessons in the traditional classes. A supplemental study one year later returned similar results. This indicated that

a discovery-based learning experience might have enduring effects on students' conceptual understanding (Kwon, Allen, & Rasmussen, 2005). This study is pivotal in indicating that while one might not initially perceive a difference between traditional and discovery-based students' performance on procedural questions, conceptual understanding could still differ between the two groups. Mark Daniels (2008) also found similar results with using discovery-based methods in a study of undergraduate Calculus I and II classes designed specifically for preservice secondary mathematics teachers.

A number of other studies showed increased mathematical content knowledge related to the use of discovery-based methods. It was found that reading, in conjunction with writing and talking, can serve to further students' understanding of mathematical ideas through inquiry-based activities. In addition, a six-month study of teaching and learning mathematics in a classroom of fifth-grade students provided evidence that inquiry-based teaching methods led students to reason more in the way professional mathematicians do when problem solving (Lampert, 1990).

One of the largest studies exploring discovery-based teaching methods was conducted in 62 introductory undergraduate physics courses and involved more than 6,000 students. The study concluded that students who were taught using discovery-based interactive teaching methods had an average course knowledge gain that was almost two standard deviations above that of students who were taught using traditional methods (Hake, 1998). Similar results were obtained in an investigation of a discovery-based physics curriculum, where 6th- through 9th-grade students who were taught using discovery methods outperformed 11th- and 12th-grade students in traditional classes on an assessment that measured knowledge of physics curriculum (White & Frederiksen, 1998).

Last, a comprehensive study of the effects of discovery learning practices on undergraduate students enrolled in mathematics courses at four universities found that while the changes in beliefs, motivations, and strategies were modest for students in both the discovery and the nondiscovery-based classes, evidence suggested that the two types of courses had opposite effects on students in relation to confidence and collaboration. While students in the discovery classrooms displayed mostly positive effects in these two areas, the changes in the nondiscovery-based courses were negative in effect.

Discovery Learning: Pros and Cons

While various authors indicate that discovery learning leads to increases in both student engagement and content relevance, some have pointed out that this teaching method is not for everyone. Thus, to conclude, a list of pros and cons of discovery learning is provided based on the existing literature.

Research on discovery learning claims the following advantages. Discovery learning

- promotes creative thinking;
- sees failure as a natural and, at times, essential step on the way to success;
- is engaging and motivational to the student learner;
- promotes the development of higher-level thinking skills;
- enhances the confidence of the learner in the learning process; and
- develops skills in students that are needed for the workforce, such as problem solving, communication, collaboration, and presentation skills.

Some researchers point out that not enough is known about what constitutes good discovery-learning practices. For example, debate about how much guidance should be offered by the instructor (as facilitator) to students is unanswered (Kirschner, Sweller, & Clark, 2006). Some report that inquiry- or discovery-based design models are not easy to implement, since student learners need to quickly develop or possess a number of cognitive skills and must be inherently motivated to learn the material under investigation (Jong & Joolingen, 1998). A lack of such skills could result in ineffective student performance when subjected to discovery methods. In this regard, some of the representative criticisms of discovery learning practices are as follows:

- Not all learners embrace discovery learning as an effective or pleasant way to learn.
- Some students become frustrated easily when subjected to discovery practices.
- Some students do not feel comfortable collaborating with others or with the prospect of presenting results in front of a class, as is often an expectation of discovery-based classes.
- Instructors may be reluctant to try discovery methods, fearing that student or administrator evaluations of the instructor's teaching may not be high.

Mark Daniels

See also Bruner, Jerome; Dewey, John; Learning, Theories of; Piaget, Jean; Radical Constructivism: Ernst von Glasersfeld; Vygotsky, Lev

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Distributed Cognition

The term *distributed cognition* was introduced by Edwin Hutchins and Tove Klausen (1998). The term refers to a general finding by Hutchins and others that it is useful to consider cognitive accomplishments as achievements of systems that include individual persons interacting with each other and with other subsystems. An analysis that assumes distributed cognition identifies something that is accomplished by a system and develops an explanation of how that accomplishment is achieved. Such an analysis can focus on information that is used and/or constructed in the activity that results in the accomplishment. By focusing on information, the analysis would be considered a *cognitive* analysis. By focusing on a system with multiple sources and sites of processing information, the cognition that is analyzed is a *distributed cognition*. This entry describes distributed cognition, examines some examples, discusses the idea that there are different levels of distributed cognition, and explains the classroom implications of distributed cognition.

Analyses that assume distributed cognition are part of a program of research, including theoretical development, that stands in contrast to the standard theory. For example, work by Walter Kintsch and Teun A. van Dijk (1978) and Allen Newell and Herbert A. Simon (1972) treated cognition as individual processes that occur in individuals' minds. Other branches of this broad development include embodied cognition, as described by Raymond Gibbs (2006) and Mark Johnson (1987) and presaged by John Dewey (1916, chap. 11); cultural-historical activity theory, as presented by Yrjö Engeström (1999); and situative theory, in the work of James

G. Greeno (2011). Each of these developments expands the focus of analyses of cognition beyond the processes that occur in the minds of individuals. Embodied cognition includes bodily movements and gestures as inherent components of thought and communication; activity theory and situative theory adopt *activity systems* (systems that can include multiple individual persons along with other material and informational resources) rather than individual mental systems as the primary focus of analysis.

Ship-Positioning System as Distributed Cognition

As an example, consider an analysis by Hutchins (1995) of the process of fixing the position at sea of a naval ship. This process was carried out at least once every hour in the open sea and at least once every 15 minutes when the ship was within sight of land. The purpose of taking a fix was to construct information about where the ship was and where it was headed. The information was represented as a region on a chart that resulted from drawing three straight lines that intersected, forming a triangle, which probably contained a point that corresponded to the position of the ship, and a line segment that represented the path of the ship in the next interval of time assuming its current speed and heading.

The process began when an officer, the bearing timer-recorder, announced that it was time to take a fix. Then, the seamen on the deck of the ship used instruments called alidades to sight prespecified landmarks. The instrument, aimed at a landmark, provided a numerical representation of the direction from the ship to the landmark. The seaman reported that representation, using a telephone line, to the officers in the navigation room. An officer, called the plotter, had a chart that represented the geography of the general location of the ship, including the locations of the landmarks. That officer drew a line, called a line of position, corresponding to the direction from each landmark to the ship. If the readings were all exactly accurate, the three lines of position would intersect at a point, which would represent the ship's location. In practice, the three lines intersected to form a triangle, a region of points that probably included a representation of the ship's position. If the triangle was small enough, the fix was considered to be satisfactory.

Hutchins's analysis of this system used the information processing framework of analyzing cognition. Overall, the system constructed symbols (numerals and lines on the chart) that were understood to provide an approximate representation of the ship's position in a spatial environment at the moment when the bearing timer-recorder officer declared that it was time to fix the ship's position, and the path the ship would take in the next interval of time if its course was maintained without change. The process included obtaining information through interaction with objects in the world—subsystems that included a seaman, an alidade, a landmark, a chart, and so forth.

By focusing on the construction, communication, and transformation of *information*, Hutchins's analysis is an example of an analysis of *cognition*. There were several sources of information and sites of knowledge that supported the representation and transformation of information; therefore, the system is an example of *distributed cognition*. By identifying the information processing components of the system and their functions in the overall process of constructing a representation of the ship's position and future path, and by showing how the activities of the components interacted, Hutchins provided an explanation in the form of an information processing *mechanism*.

Other Examples of Distributed Cognition

Hutchins and Klausen (1998) introduced the term *distributed cognition* to characterize their findings in an analysis of an incident in which the members of an airplane cockpit crew requested and succeeded in obtaining clearance to change their altitude. Different members of the crew contributed different items of information that collectively represented the conditions that needed to be met for a change in altitude to be justified and approved. Hutchins concluded that this exemplified a type of situation where the knowledge base needed for success in an activity is distributed across the participants in an activity system.

An earlier example of an analysis of distributed cognition was provided by Jean Lave, Michael Murtaugh, and Olivia de la Rocha (1984), who conducted an ethnographic analysis of some individuals as they were shopping for groceries. A cognitive process that is prevalent in shopping is decision making, when a person chooses which of several packages to buy. Lave contrasted her observations of shoppers deciding between alternatives with the then standard cognitive analyses, treating making a decision as a kind of problem solving. She concluded

that the cognitive theory of problem solving could not explain the problem-solving processes of the people she observed. The standard cognitive account assumed that a problem solver carries out a search in a problem space that remains stable as the problem solver seeks a series of problem-solving actions that achieves the goal. Instead, the problem-solving that Lave observed involved dynamic interactions of shoppers with the material and information in the store, so that the goal of the problem and the means of satisfying it were co-constituted by the shopper and the features of the environment.

Another example was provided by Sally Jacoby and Patrick Gonzales (1991), who studied the activities of a physics laboratory group ethnographically. Members of a research group require expertise to develop innovative research, and Jacoby and Gonzales focused their analysis on contributions to the physics group's activity that reflected expertise by members of the group. They found that expertise was distributed between different participants, with one participant (the senior physicist who was the group's director) providing special expertise regarding theoretical issues and another participant (a postdoctoral researcher) providing special expertise regarding the experimental literature. Jacoby and Gonzales's analysis showed ways in which participation in the group was organized to recognize and utilize expertise, and it showed that positioning that recognized expertise did not reside consistently with a single participant but shifted appropriately between participants, supporting contributions that provided the group with beneficial information and interpretations.

Toward a Pluralism of Theories at Different Levels

Analyses of distributed cognition are alternatives to analyses of cognition as a process of individual mental activity. Scientists often strive to develop a single best theory of the phenomena they study, and this tendency easily leads researchers to treat theories of individual cognition and theories of distributed cognition as competitors. An alternative, however, is to consider theories of individual cognition and theories of cognition in activity systems as being focused at different levels and to treat them as complementary. This idea has been discussed extensively by Sandra Mitchell (2003), who argued that theoretical development, especially in biology, can be understood well by considering it as *integrative pluralism*. If we

adopt this view, we can consider theories of individual cognition, as they are developed in cognitive science, and theories of distributed cognition, as they are developed in studies of activity systems, usually with multiple participants, as being about the same processes but focused at different levels, treating cognition as an aspect of individual mental activity or as an aspect of processes of activity systems. There should be competitive theoretical development at each of the levels, and it is an advantage for a theory at either level to contribute to integration between theories at the two levels.

Classroom Implications of Distributed Cognition

When we consider cognition as a distributed process, we can shift the way we consider processes of teaching and learning in classrooms. Instead of only considering students as recipients of the knowledge and understanding provided by a teacher and other sources, including textbooks, it is also natural to consider knowledge and understanding as being co-constructed by the teacher, students, and other resources that the teacher and the students utilize.

When teachers and students interact, they can organize their interaction in several ways. In a common pattern, the teacher speaks, and the students listen and occasionally ask a question for clarification. In another pattern, the teacher poses a broad question or an open-ended problem and leads or orchestrates a discussion in which the students propose ideas, expand on them or question each other, and resolve differences. Theoretically, the idea of distributed cognition applies to any of the ways teachers and students organize their interactions. The patterns of information that are constructed in the classroom interaction are understood, in this view, as being co-constructed in the joint actions of the several participants.

The way participation is organized in a classroom affects what students learn. As Lave and Wenger emphasized, learning by an individual in a community of practice can be a transition from being a peripheral participant to fuller participation. When students are positioned in classroom activity as contributors to advancing the class's understanding and knowledge, and their contributions are framed as having general significance, they can learn to act in ways that are general and generative (Boaler, 2002; Engle, 2006; Engle, Nguyen, & Mendelson, 2011).

James G. Greeno

See also Cognitive Revolution and Information Processing Perspectives; Dewey, John

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DIVERSITY

Social diversity—with respect to race, ethnicity, religion, nationality, sexual orientation, gender, social class, and various dimensions of culture—is important for a number of reasons. First, in a diverse society, it is highly likely that social policies, reforms, educational interventions, and the like will affect different groups differently—an intervention that benefits some groups may harm others. In this context, a second set of issues arises, namely, the contentious matters of social justice, equality of opportunity, and personal and community rights. Third, even social interaction in workplaces, organizations, and institutions is shaped by diversity—members of some groups are at a disadvantage when dealing, for example, with banks, school administrators, the police, or persons above or below them in an organizational hierarchy. Furthermore, the specific details concerning diversity and its effects vary around the world.

Given the complexity of the issues raised by diversity, this entry must of necessity limit itself. It discusses some of the contentious issues within the confines of an illustrative case study, namely, the situation in the United States, where demographic changes are making racial and ethnic diversity especially significant in the field of higher education.

On the basis of the 2010 census, the U.S. Census Bureau projects that the United States will be a "minority–majority" country by 2043, with non-Hispanic Whites making up less than half of the total population. For children under 18, it is projected that non-Hispanic Whites will be a minority by 2023. The pipeline for increased racial/ethnic diversity is already in place, even without taking into account immigration, which will also continue to produce greater diversity. For the first time in its

modern history, more non-White than White babies were born in the United States in 2011.

One of the effects of this increased racial/ethnic diversification of the country will be on higher education institutions. It is estimated that by 2050, the racial/ethnic composition of community colleges will be more than half Latinos, a quarter Whites, slightly less than 10% African Americans, and 10% Asian-background students. Four-year public institutions will have slightly less than half Latinos, 8% African American students, 15% Asian-background students, and a third White students. Only in private four-year institutions will the majority of students be White (see the documentation in Lopez, 2006, p. 11).

One might ask, with these projections, why higher education institutions need to do anything to engage diversity educationally. Why is there a challenge of ensuring that students from different backgrounds in the United States and from other countries interact with each other? Won't such diverse interactions be a natural social consequence of the greater diversity that will exist on college/university campuses? The answer is "No," not if the patterns of racial/ethnic segregation that exist today continue and not if pupil assignment in K–12 continues to be based on neighborhood residency, as it is today. Unless residential segregation is markedly less than what it is today and unless students do not attend largely racially/ethnically homogeneous elementary and high schools, students will still come to college with little cross-racial/ethnic interaction. Even though students may see each other and even acknowledge some level of racial/ethnic and cultural difference, they likely will not know or understand each other in more than superficial ways.

The Controversial Role of Diversity

What increased racial/ethnic diversity means for higher education needs to be considered within long-standing debates about the impact of social diversity on the unity and disunity of institutions and politics. The ancient Greeks debated the impact of diversity on the capacity for democracy. Arlene Saxonhouse, in her book *Fear of Diversity* (1992), contrasts how Plato and Aristotle dealt with diversity. She argues that Plato conceived of a city-state in which unity and harmony would derive from a homogeneous citizenry, while Aristotle conceived of democratic unity as involving social relationships among citizens who hold diverse perspectives and whose interactions are governed by freedom and the rule of civil

discourse. For Aristotle, it is discourse on conflict, not unanimity based in homogeneity, that helps democracy thrive. Thus, the impact of diversity on the sustainability and vitality of democracy has been debated for millennia, and it remains a contentious political issue.

If, as some people believe, the stability and viability of democracy depend on harmony and unity, diversity and multiculturalism are often perceived as threats to democratic processes. According to Arthur Schlesinger (1991), a prolific critic of multiculturalism, especially in educational settings,

> when multiculturalism means the assumption that ethnicity is the defining experience for every American, that . . . we must discard the idea of a common culture and celebrate, reinforce and perpetuate separate ethnic and racial communities, then multiculturalism not only betrays history but undermines the theory of America as one people. (pp. 13–14)

The fear that diversity may undermine the unity needed for democracy underlies the critiques of diversity offered in amicus briefs by the National Association of Scholars affirmative action cases over the past decade and in essays opposed to multicultural initiatives within schools of social work and intergroup dialogue programs (Wood, 2008). Others argue that diversity can be compatible with democracy and may even foster it when the rules of civic engagement involve genuine communication among people from many cultural, racial, and ethnic backgrounds.

Whatever the controversies about the impact of diversity, it is clear that higher education institutions will need to successfully educate a much more diverse population of students. The public mission will be, as now, to educate all students to be global leaders and active contributors to the sustaining and advancing of local and global economies and democracies.

Research on Diversity in Higher Education

Research on diversity in higher education provides some guidance about how colleges and universities can educate the increasingly diverse population of students to become local and global leaders. A new, large literature on the impact of diversity in higher education was fostered when evidence about the educational role of diversity was needed in legal cases involving affirmative action. In 1978, when

the first higher education affirmative action case, *Regents of the University of California v. Bakke*, was considered by the U.S. Supreme Court, there was scant research evidence that could be brought to bear on the contention that diversity has educational benefits. In *Bakke*, it was Justice Lewis Powell's reasoning, without benefit of a research basis, that was decisive: Diversity could be a compelling state interest justifying a narrowly tailored use of race in admissions. Cases that followed the *Bakke* decision adopted this reasoning, and since then, considerable effort has gone into providing empirical evidence about the educational role of diversity.

In the *Grutter v. Bollinger* and *Gratz v. Bollinger* cases, heard by the U.S. Supreme Court in 2003, three levels of diversity were conceptualized: (1) structural diversity, (2) curricular diversity, and (3) interactional diversity. Research affirms the importance of structural diversity—the demographic representation of students on campus. Students who attend the most diverse institutions interact the most with diverse peers. However, it cannot be assumed that the demographic diversity on campuses automatically leads to the desired educational outcomes for students. A second set of studies shows that diversity must be leveraged in intentional ways through courses— curricular diversity—and out-of-class interactions and programs—interactional diversity—to produce educational benefits. Research also shows that such institutional use of diversity is related to a wide range of positive student outcomes, among them critical thinking skills, academic self-confidence, consideration of multiple perspectives, motivation to bridge differences, and empathy for others who differ in social background and experience. Many studies also stress that peer interaction across diverse individuals and groups is especially influential.

Few of these studies, however, provide evidence that diversity courses or experiences specifically *cause* students to change in these ways. Mere evidence that students change from the beginning to the end of a course or a college experience is not causally conclusive because those students might have changed just because of the experience of being in college. True (randomized controlled) experiments are needed to demonstrate that diversity causes educational changes in students. For example, researchers from nine universities used an experimental design to assess the causal impact of a diversity course called intergroup dialogue, which leverages both curricular and interactional diversity by offering a structured curriculum based in active learning and by enrolling equal numbers of White students and students of color. The experimental design of the multi-university study enabled causal conclusions about diversity to be drawn. (See Gurin, Nagda, & Zúñiga, 2013, for a book-length presentation of this research.) The study found significantly greater change among the students receiving the experimental treatment—change that lasted for at least a year.

Thus, intergroup dialogue is one proven approach to leverage social diversity for educational benefit. While many other approaches exist across colleges and universities, most of them need this kind of rigorous assessment of impact. Going forward, higher education institutions need to make dealing positively with diversity a strategic mission in order to successfully educate an increasingly diverse student body. They must aim for an evidence-based impact of their efforts so as to produce graduates prepared to further technological and social innovation and to be leaders capable of negotiating, collaborating, and dialoguing with leaders across the world, especially those from non-Western countries, what Zakaria (2008) calls "the rising rest."

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See also Bilingual Education; Equality of Educational Opportunity; Ethnicity and Race; Gender and Education; Higher Education: Contemporary Controversies; Legal Decisions Affecting Education; Multicultural Citizenship; Social Class

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Dropouts

One of the major educational challenges in virtually all industrialized nations is ensuring that as many students as possible graduate from upper secondary or high school. For although many countries allow students to leave school prior to completing upper secondary school, a high school diploma is increasingly a minimal requirement for entry into the labor market and for further education. Students who quit school before graduation are referred to as dropouts. This entry discusses the causes and social outcomes of dropping out of school. It then examines some essential elements in programs aimed at preventing students from dropping out.

According to the Organisation for Economic Co-operation and Development (OECD, 2013), the average upper secondary graduation rate among all member countries in 2011 was 83% and ranged from 49% in Mexico to 99% in Slovenia. The graduation rate in the United States was 77%, which ranks 21st among all 34 member countries.

Graduation rates vary by several demographic characteristics. In the United States, for example, graduation rates are higher for women than for men; and there are large disparities in high school graduation rates by racial and ethnic background, with graduation rates among African American and Hispanic students as much as 30 percentage points lower than among Asian American and White students. Finally, there are large disparities in graduation rates by family background, with students whose parents graduated from college having much higher graduation rates than students whose parents failed to complete high school. The challenge of improving high school graduation rates in many schools, districts, and states in the United States will depend greatly on the ability to improve rates among the most disadvantaged populations, especially in places with large concentrations of such students.

One reason to reduce dropout rates and improve graduation rates is that dropouts suffer extensive economic and social consequences—they have difficulty finding jobs and earn substantially less than high school graduates, they have poorer health and higher rates of mortality than high school graduates, and they are more likely to engage in criminal behavior and be incarcerated over their lifetimes than are graduates. They also are more likely to require public assistance and less likely to vote. Although the observed relationship between dropping out and these economic and social outcomes does not necessarily imply a causal relationship, a growing body of research evidence has, in fact, demonstrated one (Rumberger, 2011). This suggests that efforts to reduce dropout rates would, in fact, reduce these negative social outcomes and the huge attendant costs—federal, state, and local governments collect fewer taxes from dropouts, and the government subsidizes the costs associated with poorer health, higher criminal activity, and the increased need for public assistance.

Understanding why students drop out of school is the key to addressing this major educational problem; yet identifying the causes of dropping out is extremely difficult. Like other educational phenomena, the causes of dropping out are influenced by an array of proximal and distal factors related both to the individual student and to the family, school, and community settings in which the student lives. Dropouts themselves report a variety of reasons for leaving school, including school-related, family-related, and work-related reasons. But these reasons do not reveal the underlying causes of students quitting school, particularly those causes or factors in elementary or middle school that may contribute to students' attitudes, behaviors, and school performance immediately preceding their decision to leave school. Moreover, if many factors contribute to this phenomenon over a long period of time, it is virtually impossible to demonstrate a causal connection between any single factor and the decision to quit school.

Interventions to Reduce Dropout Rates

Despite this difficulty, two types of factors have been identified that contribute to or increase the likelihood that students drop out of school: (1) individual factors, associated with students' attitudes, behaviors, and experiences, and (2) contextual factors, associated with students' families, schools, communities, and peers.

Knowledge about why students drop out suggests several things about how to design effective intervention strategies. First, because dropping out is influenced by both individual and institutional factors, intervention strategies can focus on either or both sets of factors. That is, intervention strategies can focus on addressing the individual values, attitudes, and behaviors that are associated with dropping out, without attempting to alter the characteristics of families, schools, and communities that may contribute to those individual factors. Many dropout prevention programs pursue such *programmatic strategies* by providing would-be dropouts with additional resources and support to help them stay in school. Alternatively, intervention strategies can focus on attempting to improve the environmental contexts of potential dropouts by providing resources and support to strengthen or restructure their families, schools, and communities. Such *systemic strategies* are often part of larger efforts to improve the educational and social outcomes of at-risk students more generally.

Second, because dropping out is associated with both academic and social problems, effective prevention strategies must focus on both arenas. That is, if dropout prevention strategies are going to be effective, they must be comprehensive, providing resources and support in all areas of students' lives. Because dropouts leave school for a variety of reasons, services provided for them must be flexible and tailored to their individual needs.

Third, because the problematic attitudes and behaviors of students at risk of dropping out appear as early as elementary school, dropout prevention strategies can and should begin early in a child's educational career. Dropout prevention programs often target high school or middle school students who may have already experienced years of educational failure or unsolved problems. Instead, early intervention may be the most powerful and cost-effective approach to dropout prevention.

To conclude, successfully addressing the dropout problem will require both capacity and will. Capacity requires technical expertise to develop and implement effective dropout prevention and recovery programs as well as more ambitious systemic school reforms. While some schools have such capacity, in most cases additional resources, technical expertise, and incentives are required to restructure existing schools. The development of such capacity will require political will; but even with the will to reform schools, it is unlikely that any country will ever be able to ensure that all students graduate from high school without ensuring adequate resources for families, schools, and communities.

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See also Achievement Gap; Adolescent Development; At-Risk Children; Motivation; Social Class

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Du Bois, W. E. B.

William Edward Burghardt Du Bois (1868–1963) was an African American sociologist, philosopher, historian, and activist whose work greatly influenced education in the United States. His philosophy of education is inseparable from his conceptions of the intersection of race and culture and from his view of humanity as a synergy of dissimilar cultures in a dynamic relationship of mutual benefit and interdependence. Although his philosophy of education is often perceived as captured in the "Talented Tenth" concept (the view that higher education should develop the potential of the most able Black students), that idea is only a phase in his educational thought and a particular reaction to the assaults on Black higher education at the turn of the 20th century. His overarching philosophy of education was much broader, more complex, and more progressive than the Talented Tenth theory.

Du Bois's educational thought derived from his view of civilization as a dynamic equilibrium, a

cultural ecosystem, in which humanity is preserved and advanced by insights and contributions from a diversity of cultures existing on a plane of equality. His study of race and culture was closely linked to his deeply held belief that humanity is a cultural ecosystem of different racial/cultural groups bound together by "a common history, common laws and religion, similar habits of thought and a conscious striving together for certain ideals of life" (Du Bois, 1897a, p. 10). Put another way, the separate and distinctive historical experiences of various populations produce novel ways of thinking, distinctive values and beliefs, and different preferences on a variety of political, economic, and social issues. Du Bois's philosophy of education presupposed a universal humanity sustained and advanced through the synergy and interdependence of the various racial/culture groups of the world.

The critical questions for Du Bois, then, were how different cultures of the world could achieve self-realization and how they could contribute their crucial "ideals of life" to universal humanity. His answer to the first question was relatively straightforward: "by the development of these race groups, not as individuals, but as races" (Du Bois, 1897a, p. 10). "For the development of Negro genius, of Negro literature and art, of Negro spirit," wrote Du Bois (1897a), "only Negroes bound and welded together, Negroes inspired by one vast ideal, can work out in its fullness the great message we have for humanity" (p. 10). He characterized a second and more complicated question as the struggle for cultural citizenship. Du Bois (1973) stated specifically that it was his larger goal "to educate the Negro into the possibility of full citizenship in the modern world of culture" (p. 85). Whereas self-realization was basically an internal struggle, cultural citizenship was fundamentally an external struggle, hinging directly on the power relationships between subordinate and dominant groups. The end of the Negro's striving, said Du Bois (1897b), "is to be a co-worker in the kingdom of culture" (p. 196). The long-standing contradiction between cultural self-realization and cultural oppression constituted for Du Bois the "unreconciled strivings" to be both Negro and American. Reconciliation would come only when the striving for cultural equality was achieved.

As Du Bois developed his thinking about culture and education, he also clarified his thinking about who should be educated and for what purpose. In 1920, Du Bois, rather than advocating liberal education for the Talented Tenth and industrial education for the masses, cautioned that education must seek to provide "the utmost possible freedom for every human soul" (p. 208). The aim of education, Du Bois maintained, is to "develop human souls" and "to make all intelligent" by discovering the special talent and genius of each individual. Unless education accomplishes its goal of developing "wider, deeper intelligence among the masses," said Du Bois, "democracy cannot accomplish its greater ends" (p. 208). Every single human being, said Du Bois, deserves "college and vocational training free and under the best teaching force procurable for love or money" (p. 212). Ultimately, he defined higher education as the birthright of the masses, not just a privilege of the Talented Tenth. "We assume that only the wealthy have a real right to education when, in fact, being born is being given a right to college training," wrote Du Bois in 1920 (p. 216). College training was necessary to achieve Black cultural self-realization and also to prepare Black students to engage other cultures of the world in the realm of a broader humanity. As Du Bois stated in 1920,

> Shall we teach Latin, Greek and mathematics to the "masses"? If they are worth teaching to anybody, the masses need them most. Who shall go to college? Everybody. When shall culture training give place to technical education for work? Never. (p. 215)

He viewed cultural training as the foundation of our larger humanity and thus emphasized its equal importance to the masses and elites.

The concept of a united humanity synthesized from the special gifts of each historical race remained an article of faith for Du Bois. Even the worst of times could not shake his basic belief in the prospects of a peacefully united humanity resting on the interplay among more or less coequal cultures. Throughout his life, he fought for cultural realization and cultural equality as the necessary basis for that humanity. Thus, in his 92nd year, before the 1960 Conference of the Association of Social Science Teachers, Du Bois reaffirmed his lifelong struggle for cultural realization and cultural equality. "What I have been fighting for and am still fighting for," said Du Bois, "is the possibility of black folk and their cultural patterns existing in America without discrimination; and on term of equality" (Du Bois, 1973, p. 150). It was forever his belief that African and African American art, literature, religion, philosophy, and history contained critical insights about human oppression and freedom, embodied

crucial ideals of life for all humanity, and offered the only path to a successful future for Black Americans. Beyond every group's own cultural realization, however, lay what Du Bois considered to be the highest stage of development, "the chance to soar in the dim blue air of a common humanity." Up there "above the smoke," he said, "across the color line I move arm and arm with Balzac and Dumas," "I sat with Shakespeare and he winces not," "I summon Aristole and Aurelius," and "they come all graciously with no scorn nor condescension." "So wed with truth, I dwell above the Veil," said Du Bois (1903, p. 76). Throughout his career, he believed deeply in the idea of a cultural symbiosis, a universal humanity made possible only by diverse cultural contributions.

This conception of society as a cultural ecosystem in which each separate and distinct ethnocultural group made its own distinctive and worthy contributions to the larger humanity guided Du Bois's educational theory. A child's formative education, he maintained, should be grounded on the historically conditioned experiences and sensibilities of each ethnocultural group. With respect to the education of Black children, Du Bois called for an education system based on the history and culture, as well as the philosophies and theories, centered on the African American experience, delivered through a curriculum of history, art, literature, music, folklore, ethics, and philosophy and developed by Black scholars. Yet the primary purpose of such education is not to perpetuate "the very cleft that threatens and separates Black and White America" but to realize a broader humanity that freely recognizes human differences while deprecating inequality in opportunities for individual development. Ultimately, Black education should develop not in opposition to but in harmony with the greater ideals of the American republic so that different groups could contribute to each other those cultural and humanistic insights lacking in their own separate and distinct historical experiences.

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See also Democratic Theory of Education; Ethnicity and Race; Racism and Multicultural Antiracist education

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E

ECONOMIC DEVELOPMENT AND EDUCATION

The idea that there is a connection between education and economic development has now become commonplace. Politicians refer to the importance of education as increasing the returns to income and national competitiveness in the global economy, as if the relationship between education and the economy is uncontested. It is not.

It should be said that reference to economic development was once reserved for developing countries, but in light of the Great Recession and the rise of the East Asian economies such as China and India, the question of how to achieve national economic growth now also applies to the so-called developed economies. The idea that a combination of sound education and "free" markets was all that was required for prosperity is now in doubt. Yet it is precisely this formula that underlies the major theories of education and economic development. This entry discusses the dominance of human capital theory and skill bias theory in explaining the relationship between education and the economy, criticism of these theories beginning in the early 1970s, and alternative viewpoints based on current trends in the global labor market.

The field of education and economic development has been dominated by human capital theory and the related skill bias theory, which has gained significance due to the perceived information technology (IT) economic revolution. Both these theories are optimistic accounts of the relationship between education and economic development. Derived from orthodox or neoclassical economics, they have aspired to knowledge claims that are universal. And in the case of human capital theory, its general proposition that a rise in educational quality will lead to increases in productivity and economic growth has held over time and location since the 1950s, with some exceptions. That is no longer the case, and new theories have arrived that challenge its fundamental theoretical and empirical claims. The same point can be made with respect to skill bias theories.

To understand why the relationship between education and economic development is contested, we need to go back to the formal origins of human capital theory that has dominated intellectual and policy thinking. Once we understand the anomalies in this theory, we can see why competitor theories are now being developed.

Human Capital Theory

Human capital theory posits that the better educated a person is, the more productive he or she is likely to be, for which he or she will earn a higher income (Becker, 1962; Schultz, 1961). The theory has three significant assumptions: that it is in the self-interest of individuals to pursue education because it will lead to higher economic returns, which form the basis for aspiration and a sense of progress in society; that education is fundamentally efficient because employers will not hire incompetent people; and that employers will respond to a better-educated workforce by investing in new technology to capitalize on the productive potential of a more skilled workforce.

On the basis of these assumptions, the theory can be tested through rates of income returns for

particular categories of skilled work (Burton-Jones & Spender, 2011). Rate of return analyses suggested that the theory offers universal validation for increasing investment and expansion in education, especially mass higher education.

The theory was attractive because it was consistent with a capitalist ideology in which all human beings could themselves become capitalists by investing in knowledge and skills, so dissolving at a conceptual stroke the idea that there was a fundamental conflict between capitalists and workers (Bowles & Gintis, 1975). It provided policymakers with a simple policy prescription: Provide the means for individuals to have a good general education, and they will increase their income and the nation's wealth. It also provided legitimacy for social mobility because employers will hire on merit, since it would be inefficient to do otherwise. Hence, upward social mobility can be explained through the acquisition of educational credentials and the way they can be cashed out in the labor market.

While the theory had its roots in the United States, the early human capital theorists also saw its potential with respect to less developed economies. Initially the World Bank, as the principal lender to less developed economies, took little interest in education. Gradually, an interest emerged in relation to technical and vocational education and then primary education. In 1981, the World Bank appointed George Psacharopoulos as head of its education department's research unit, and his analysis of rate of returns to different levels of education in developing countries has proved, until recently, to be highly influential. As late as 2007, two of the leading proponents of human capital theory, Eric A. Hanushek and Ludger Woessmann, were arguing in a paper for the World Bank that the "quality" of education can make a significant difference to a developing nation's notional future GDP (gross domestic product). They calculated that if the educational reforms they recommend were implemented, GDP would rise in developing countries by 5% over 20 years. The educational reforms they recommended are ideologically loaded: school choice and competition, autonomy for schools, and accountability for outcomes.

Since the advent of the latest IT-driven industrial revolution, a new form of human capital theory has taken center stage: skill bias theory.

Skill Bias Theory

Skill bias theory makes the universal assumption that the demand for skilled workers will be driven by new technology. The fundamental proposition is that the general purpose technologies associated with IT are skill biased rather than skill replacing; new technology will increase the demand for higher skills rather than replacing skills with machines. Its policy significance lies in the support that it has provided and continues to provide for the rapid expansion of university education, while assuming that technology will drive the corresponding organizational and economic changes to utilize the skills that graduates acquire. There are several accounts of skill bias theory. However, the most powerful is that articulated by Daron Acemoglu (2002), who argues that there is an endogenous relationship between new technology and the demand for skilled workers. New technologies are endogenous in that their adoption is a response to incentives; in particular, the increase in the supply of skills will lead to acceleration in the demand for higher skills. Such a view is consistent with human capital theory in that it also assumes that market mechanisms will ensure that demand will respond to supply. As Claudia Goldin and Lawrence Katz (2008) note, this approach provides an explanation for the polarization of incomes: Where there is an undersupply of skilled labor, the premium for skilled labor (e.g., graduates) will rise. In the case of the United States, Goldin and Katz argue that the polarization of income is a consequence of a lack of enrollments in four-year college programs. If there was an increase in numbers of four-year college graduates, their incomes would decline, thus reducing the polarization of incomes.

While skill bias theory may be considered a theoretical innovation that builds on human capital theory, there have been few others in the orthodox tradition. One, however, is of note, the work of David Baker (2012). He argues that education produces both minds and character that are productive in the workplace and that education has fundamentally changed the workplace. In particular, what he calls the schooled society has created "thinking and choosing actors, embodying professional expertise and capable of rational and creative behavior." These enable new forms of organization that are global and characterized by accounting and auditing frameworks, elaborate legal contracts, corporate social responsibility, human relations, and strategic planning. Baker's innovation is to provide a more developed account than that of orthodox human capital theory, which focuses on the nature of the schooled society and the way it has changed the nature of organizations.

While Baker's theory extends the notion of human capital while going beyond the formal theory, both human capital and skill bias theories continue to enjoy the confidence of policymakers. This is because they chime with the more loosely articulated but rhetorically powerful notion of the knowledge economy—the view that technical knowledge and innovation are the key drivers of the modern economy. Indeed, Gary Becker (2006), the doyen of human capital theorists, has claimed that we are now living in the age of human capital because of the nature of the knowledge economy. However, human capital theory has been under intense criticism from its early days. Now, however, there are also competitor theories that make the case for it and skill bias theory more precarious.

Criticisms of Human Capital and Skill Bias Theories

By the early 1970s, human capital theory had come under sustained criticism. In particular, it failed to take into account that wages do not reflect productivity as assumed by human capital theory. Indeed, contemporary analyses of wages and productivity show a sharp divergence between productivity and the median wage. Other factors, apart from education and skill, also determine wages; these include unionization, the minimum wage, and traditions of status that continue to affect men's and women's wages. Underlying these criticisms was a further crucial assumption of both human capital and skill bias theories—they made claims to universality that their propositions held true at all times and in all places. The point made by the critics was that we could only understand wage setting by reference to a range of national institutions. Such a view is explicit in the seminal paper by David Finegold and David Soskice (1988), in which they argued that Britain had a dual equilibrium economy based on high and low skills, respectively. However, the keys to understanding this economy were the institutions that buttressed high and low skills. In other words, universal claims regarding the education–economy relationship cannot be made because we also need to understand institutional configurations peculiar to national economies.

A further problem with human capital and skill bias theories is that they assume a relatively simple correspondence between the supply and demand for skills. However, if we take positional conflict theory into account (Brown, 2000), then it is clear that rises in the demand for credentials may not reflect technological or organizational advances but are part of a competition in which credential inflation arises because individuals with higher credentials are more likely to be employed. For positional conflict theorists, it is the best resourced that will gain because they can afford to run the long credential race.

Finally, it should be noted that neither human capital and skill bias theorists nor indeed their critics have taken into account the impact of the creation of global labor markets. The former theories have applied their notion of the universal within the confines of methodological nationalism and have not taken into account the global trends and the way they will influence the supply and demand for skilled labor.

Toward Alternative Accounts of Education and Economic Development

If it has been assumed by policymakers and orthodox economists that the IT revolution will increase the demand for educated labor, then there are four trends that raise serious doubts about this claim (Brown, Lauder, & Ashton, 2011); central to these trends is the creation of a global labor market for all except those who do "face-to-face" work. The trends are as follows: a massive rise in educated labor, especially in developing economies, raising the prospect of high-skill, low-wage work; a quality–cost revolution in which East Asian and Latin American economies can produce high-quality goods and services at low cost; and the dissemination across the globe of Digital Taylorism, in which knowledge work is increasingly routinized because the distinguishing feature of all economic revolutions is that an initial burst of creativity is followed by standardization in mass markets and that there is "war" for the services of a few defined as "talented" (typically individuals from elite universities). Paradoxically, as we now have more graduates than ever before, so leading corporations take the view that only a few are really capable of driving forward their global businesses.

Key to these trends is the way that multinational companies now source skills from across the globe, usually at the lowest possible price. This means that we are now entering a period of a global auction for skilled labor, but it is a "Dutch" or "reverse" auction in which jobs go to those with the lowest costs (Brown et al., 2011). The implications for human capital and skill bias theories are clear: The assumptions that incomes will rise as educated

labor becomes more productive, and that new technology is skill biased, are in doubt in countries like the United States and the United Kingdom where skilled labor is relatively expensive. Equally, new technology appears to be skill replacing rather than skill biased.

For less developed economies, the global auction provides a mixed analysis. As we have seen in China and India, there is an increasing demand for high-skilled workers. Furthermore, one of the key findings concerning the quality–cost revolution is that high-quality goods and services can be produced anywhere, provided there is a communications infrastructure. The days when we thought that skill formation required sophisticated institutions and traditions are over. Multinational corporations (MNCs) now have the quality control systems to ensure high-quality production in which they train their operatives. The downside is that less developed economies need to identify where they can fit into MNC supply chains, not an easy task given that MNCs are footloose: They will move production locations, typically, wherever they are cheapest. The movement of production locations from the expensive Chinese eastern seaboard into the west of China and south to Vietnam is one such example. There are many others, as observers in the United States and United Kingdom have noted. What is clear is that the kind of linear human capital analysis in which higher education will lead to high economic growth, as provided by Hanushek and Woessman (2007), is inadequate to understanding the challenges faced by "developed" and less developed economies. Underlying this point is the assumption that we do not live in the imaginary of a knowledge economy but in a world of knowledge capitalism, which, as the global auction thesis suggests, has very different effects to those imagined by proponents of the knowledge economy. This has significant policy implications for how the relationship of education to the economy is understood.

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See also Globalization and World Society; Human Capital Theory and Education

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Edinburgh School of Sociology of Knowledge

The "Strong Programme" in the sociology of scientific knowledge (SSK) emerged in the early 1970s at the Edinburgh University Science Studies Unit with the work of Barry Barnes (1974) and David Bloor (1976) and was conceived as a radical challenge to the traditional conceptions of science found in both philosophy and sociology; it also has implications for science education (see Slezak, 1994a, 1994c).

The SSK undermines the traditional philosophical, epistemological enterprise and also the pursuit of science itself. If knowledge is the product of

historically contingent, "external" factors in the local social context rather than "internal" considerations of evidence and reason, then it is an illusion to imagine that education might serve to instill a capacity for critical thought and rational belief. Instead of fostering a creative mind and intellectual understanding of the world, Collins and Pinch (1992) recommend that science education should attend to the social negotiation, "myths," and "tricks of frontier science" as "the important thing" (p. 150). Above all, the relativism inherent in social constructivist theories makes it impossible for teachers to offer the usual intellectual grounds for distinguishing science from nonsense. Since the rational, cognitive virtues of theories are taken to be irrelevant to their status, one cannot complain that some views are false or implausible or otherwise lacking intellectual, explanatory merit. For example, one cannot teach that Soviet Lysenkoism or Hitler's racialism were perversions of scientific truth. According to social constructivist doctrines, their success in winning consensus must count as an exemplary scientific achievement. By repudiating the role of rational, cognitive considerations as the justification for scientific beliefs, social constructivist theories are a variety of relativism that Laudan (1990) characterized as "the most prominent and pernicious manifestation of anti-intellectualism in our time" (p. x). Instead of fostering rationality and critical, independent thinking, education on the constructivist account is only propaganda, "extracting compliance" through power and influence.

The key theses of this Strong Programme are indeed so strong that they have engendered bitter controversy, and the precise wording of these claims warrants careful examination. This entry describes the Strong Programme and then examines some of the criticisms that have been made of it.

Previously, sociology of science paid attention only to things such as institutional politics, citation patterns, and other such peripheral social phenomena surrounding the production of science but had not ventured to explain the cognitive contents of theories in sociological terms. However, the opening sentence of Bloor's (1976) book asked "Can the sociology of knowledge investigate and explain the very content and nature of scientific knowledge?"—that is, "knowledge as such, as distinct from the circumstances of production" (p. 1). The failure of previous sociological studies to touch on the contents of scientific belief was portrayed by Bloor as a loss of nerve and "a betrayal of their disciplinary standpoint"

because sociologists had failed to "expand and generalise" (p. 8) their claims to all knowledge.

According to the Strong Programme, sociology of science must be

causal—concerned with the conditions that bring about belief or states of knowledge;

impartial—truth or falsity, rationality or irrationality, and success or failure must be explained;

symmetrical—the same types of cause would explain both true and false beliefs; and

reflexive—it must be applicable to sociology itself.

Thus, Bloor asserted the appropriateness of sociological (i.e., social constructivist) explanations for all of science regardless of evaluative judgments such as truth or falsity, rationality or irrationality, and success or failure. According to Bloor (1976), sociologists were to assert their claims over the area "currently occupied by philosophers, who have been allowed to take upon themselves the task of defining the nature of knowledge" (p. 1). Indeed, Bloor (1983) proclaimed social studies of science as the new "heirs to the subject that used to be called philosophy" (p. 182). Andrew Pickering (1992) proclaimed, "The foundations of modern thought are at stake here" (p. 22). Indeed, Bloor describes the two most important modern philosophical elucidations of science as "mystification"—namely, the theories of Karl Popper and Thomas Kuhn. In the same vein, Gottlob Frege's position in the history of Western thought is generally agreed by philosophers to be second only to Immanuel Kant or even Plato. One could not cite an example of clarification and illumination that is regarded as comparable to Frege's work in the foundations of logic, mathematics, and language. Nevertheless, Bloor (1976) characterizes Frege's work as a "mystification" and as "unpromising and imprecise conceptions" (p. 93).

Bloor (1976) suggests that the "threatening" nature of any investigation into science itself has been the cause of "a positive disinclination to examine the nature of knowledge in a candid and scientific way" (p. 42). However, despite such fears of desecration and the need to keep knowledge "mystified," every philosopher since Plato has been centrally concerned with the problem of knowledge and its justification. Nevertheless, Bloor announced his intention to "despoil academic boundaries"

(p. ix) and asserted that the sociological approach to science encounters resistance because "some nerve has been touched." And, indeed, the social constructivist movement has given rise to acrimonious polemics in the academic literature. The philosopher Mario Bunge (1991) described the field as "a grotesque cartoon of scientific research" (p. 525), and David Stove (1991) characterized the sociological doctrine of the "strong programme" as "so absurd, that it eludes the force of all argument" and a "stupid and discreditable business" (p. 31). Larry Laudan (1981), who was among the first philosophers to make systematic critical analysis of social constructivism, characterized it as a "rampant relativism" and "the most prominent and pernicious manifestation of anti-intellectualism in our time" (1990, p. x). The academic disputes gained wider public attention in the so-called Science Wars (Gross & Levitt, 2004) and especially through the notorious Sokal hoax (Sokal & Bricmont, 1997). This heightening of controversy arose from the unwitting publication by the journal *Social Text* of a spoof article written in the postmodernist style by the mathematical physicist Alan Sokal, which was deliberate nonsense.

The phenomena of central interest for the Edinburgh school were "the conditions which bring about belief or states of knowledge" (Bloor, 1976, p. 4; 1983, p. 137). Bloor (1976) says, "The theoretical component of knowledge is precisely the social component" (p. 86). Bloor's idea is that our scientific theories go beyond what is directly observable (i.e., they are "underdetermined" by evidence), and what is not empirical in this sense must be shaped by sociological influences. However, the mere fact of underdetermination does not, on its own, establish any sociological claim. Some independent grounds must be given for preferring social factors as the ones that influence the "choice" of a theory but, of course, there is rarely any "choice" in this sense, since creative theory invention or discovery is best explained as a cognitive, psychological process (Thagard, 1992).

Criticisms of the Strong Programme

The extensive body of case studies has been taken to establish the thesis that beliefs have social causes, in contradistinction to psychological ones. The causal claim concerns things such as "connections between the gross social structure of groups and the general form of the cosmologies to which they have subscribed" (Bloor, 1976, p. 3). That is, the cognitive content of the beliefs is taken to be caused by contingent, local aspects of the social milieu. Bloor asserts that this causal link is beyond dispute. However, criticisms have challenged precisely the bearing of these studies on the causal claims of social determination. Steven Shapin (1979) cites the "considerable empirical achievements" (p. 65) of the SSK, but scientific discoveries always necessarily arise in some social milieu or other. Thus, it is a truism to assert, as Shapin (1979) does, merely that "culture [taken to include science] is developed and evaluated in particular historical situations" (p. 42). To the extent that social factors are indeed ubiquitous, establishing a causal connection requires more than merely characterizing in detail the social milieu, which (necessarily) must have existed. Shapin's anthropological approach postulates "homologies" between society and theories that may serve as "expressive symbolism" or perhaps function to further social interests in their "context of use." However, these don't establish the strong claims of social causation.

Bloor (1982) cites *Primitive Classification* of Émile Durkheim and Marcel Mauss (1903/1963) in support of his Strong Programme and points to their thesis that cosmologies of groups such as the Zuñi reflected precise features of their social structure. That is, society not merely influences knowledge but "is constitutive of it" (Bloor, 1982, p. 297). However, Rodney Needham (editor of Bloor's edition of *Primitive Classification*) describes the central doctrine as an unwarranted, abrupt inference without empirical basis and a logical error that flaws the entire work. Needham (1903/1963) describes the "entire venture to have been misconceived," concluding, "It is difficult not to recoil in dismay from their unevidenced and unreasoned explanations" (p. xxiii).

Bloor contrasted accounts invoking reasons, rationality, logic, and evidence (the accounts he is trying to debunk) with "the causal" model—meaning a sociological one. Bloor complained of the traditional asymmetrical rationalist approaches that they sought to explain correct scientific theories as products of reasoned thought and, therefore, not requiring resort to causal sociological explanations. Bloor (1976) regards this "teleological" approach as rendering science "safe from the indignity of empirical explanation" (p. 7), but for rationalist philosophers, good reasons are a species of causal explanation. Nevertheless, Bloor (1976) characterized the "autonomy of science" view that he is opposing as "the conviction that some beliefs do not stand in need of any explanation, or do not stand in need of a causal explanation" (p. 5). Bloor attributes

to philosophers the "teleological" view "that nothing makes people do things that are correct but something does make, or cause, them to go wrong" and that in the case of true beliefs "causes do not need to be invoked" (p. 6). By contrast with the teleological view, which inclines its proponents to "reject causality" (p. 10), Bloor defends the "causal view," that is, the sociological approach of the Strong Programme. Moreover, Bloor states, "There is no doubt that if the teleological model is true then the strong programme is false. The teleological and causal models, then, represent programmatic alternatives which quite exclude one another" (p. 9).

Laudan (1981, p. 178) suggested that Bloor's acausal view of the traditional account of belief formation has not been held by any philosopher; instead, the traditional view is that true beliefs are caused (at least in large part) by the evidence and scientific arguments that are presented. Nevertheless, in response, Bloor (1991) maintains "attacks by critics have not convinced me of the need to give ground on any matter of substance" (p. ix). Accordingly, in the second edition of his book, he says, "I have resisted the temptation to alter the original presentation of the case for the sociology of knowledge" apart from minor spelling and stylistic changes (p. ix). However, in the section on the "Autonomy of Knowledge" dealing with the problem of causation, Bloor made crucial, substantive changes concerning the very claims that had been the target of Laudan (1981; for details, see Slezak, 1994b). It is notable that the introductory text by Barry Barnes, Bloor, and John Henry (1996) neglects entirely to mention social constructivism, the Strong Programme, or the teleological view.

Bloor did address claims that psychological, cognitive explanations constitute "as decisive a refutation of the strong program as one is likely to get" (Slezak, 1989, p. 592). However, his suggestion that the Strong Programme is consistent with cognitive science cannot be reconciled with his explicit endorsement of Skinnerian behaviorism. Bloor also suggests that there is no conflict since the sociological thesis at stake is merely that there are "social aspects of knowledge" that remain untouched by the claims of cognitive science. However, the claim that there are "social aspects of knowledge" is an uncontroversial one that no one has taken issue with and not the thesis of the Strong Programme, which was advanced against traditional epistemology.

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See also Kuhn, Thomas S.; Lakatos, Imre; Popper, Karl; Social Constructionism

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EDUCATION, CONCEPT OF

Every claim about an educational issue is partly a claim about the concept of education. The claim that there are certain "best practices" in teaching, for instance, implies that certain practices are educationally important, which implies a certain conception of what it is to be well educated. To advocate teaching a particular subject logically implies some connection between study of the subject and educational gain, and to say that a certain type of classroom management is desirable because, for example, it is conducive to developing democratic habits and values is indicative of a certain educational ideal.

It follows that everyone who engages in debate about education has to a degree a concept of education, though some are more able to articulate their conception than others, some are more able to defend and argue for their conception, while some may not even be aware that they imply commitment to a particular conception. More often than might be commonly supposed, arguments about the merits of different educational proposals are not about the likely effects of a given practice but about what has educational value; similarly, arguments about matters such as whether classics or gymnastics are more deserving of curriculum time are, at bottom, arguments about what the characteristics of educated people should be.

Relativism

The fact that there are differing and even incompatible conceptions of education naturally gives rise to the question of whether we can discriminate between these rival concepts in some rational manner. Is any concept of education as good as another, depending on who you are, where you are situated, and what you value? Or can we assert, as Plato is generally taken to have believed, that there is but one true and real concept (what he called the Idea or Form) of education, which we come to recognize by dint of rigorous philosophical inquiry (with the implication that in practice some people cannot see it and have to be guided by those who can)?

It is doubtful whether many today would defend Plato's view as thus interpreted. By contrast, most would subscribe to the view that education is what W. B. Gallie (1955) referred to as "an essentially contested concept"—that is, a concept that, generally because it is inherently evaluative, is inevitably going to be differently interpreted according to the changing values of time and place. Homeric heroes, for example, did not regard the ability to read and write as marks of the educated person, since they barely knew anything about reading and writing. But there is a danger of interpreting Gallie's notion too simplistically as implying that any conception is as good as another, provided it truly represents what you happen to value. This is unfair to Gallie, who did not argue that essentially contested concepts could be understood in any way one chooses but only that a degree of argument was inevitable in relation to certain concepts; but the argument in question is bound by certain rules and, in some cases, by facts of a nonevaluative kind. Thus, the Homeric warrior may reasonably think that martial and physical prowess are characteristics of the educated person, and we may dissent. But it does not follow that either they or we might legitimately argue that being overweight is a characteristic of the educated person.

It has sometimes been suggested that we should distinguish between a "concept" and a "conception," the former referring to something like a Platonic Form, the latter to any notion that somebody happens to hold. Thus, there is the concept of triangularity, which is the nonnegotiable notion of a three-sided figure whose angles add up to 180 degrees, whereas there may be various conceptions—that is, views, notions, or accounts, of the good life. It might prove helpful to adopt this distinction universally, but in practice, it has not been adopted, and in what follows, no distinction is made between a concept and a conception.

R. S. Peters

R. S. Peters, Professor of the Philosophy of Education at the University of London Institute of Education, who did much of his influential work in the 1960s

and 1970s, did more than anyone to sort out sense and nonsense in relation to the concept of education. Of course, as noted, philosophers who have involved themselves with educational issues may be said to have a concept of education; however, Peters's own practice implicitly made the important point that, given that fact, the appropriate, one might almost say the obligatory, first step is to articulate that conception explicitly and clearly. For this, he has been criticized as well as praised. Some, such as David Adelstein (1972), accused him of taking a Platonic stance, and of failing to see (or it was sometimes hinted, deliberately disguising the fact) that the eternally valid characteristics of the Idea of education that he claimed to discern were no more than the prejudices and values of his own background and class. Comments such as "a man might be a very highly trained scientist; yet we might refuse to call him an educated man" if he were lacking "what might be called 'cognitive perspective'" (Peters, 1966, p. 31) were castigated as being no more than a reflection of Peters's own middle-class upbringing; such criticism further tended to deflect attention away from, in this case, the important notion of "cognitive perspective" or from giving due weight and attention to various different aspects of an issue, such as the moral, the aesthetic, and the scientific. The implications of Adelstein's attack, and to a lesser extent the less personal but similar criticism of the so-called sociologists of knowledge (Young, 1971), who argue that knowledge is a social construct, logically take us back to the view that any conception of education is possible and that in itself any one is as good as another, although it is doubtful whether even Adelstein actually accepted that conclusion.

But in fact it is arguable that Peters was fundamentally correct both in his understanding of the nature of analysis generally and in his analysis of education specifically. For while it is certain that a detailed and fully fleshed-out account of what it is to be well educated will be informed and affected by the values and other nonevaluative facts accepted at a given time and place, there are certain criteria, albeit general and formal, that are necessary to any plausible or acceptable understanding of education. This may look as if it is a purely linguistic point, which is incidentally another charge that has been wrongly laid against Peters, but it is not. (Nor, more generally, should philosophical analysis be confused with linguistic analysis; though the former may take the form of the latter, it need not, and in fact even those philosophers who are widely known

as "linguistic" and who did have a real interest in strictly linguistic points, such as J. L. Austin [1962] were never interested in language alone.)

Peters's argument does indeed *begin* with a linguistic point—and it is difficult to see how any conceptual inquiry could do otherwise, since it is by means of words that we refer to concepts. The English word *education* (and its counterpart in Latin, Greek, French, or whatever) cannot mean anything that you want it to mean: Being "educated" is different from being "clever," for example, though they may happen to overlap, and one is not at liberty to suggest that being educated is one and the same thing as being rich or successful. These are verbal points, but they are also facts in terms of usage at this stage in the history of the language. As such, they help us find ground on which to take our initial stand. The word "education" refers to bringing up or developing the individual in ways that we regard as desirable, but with particular reference to knowledge and the mind. The Roman poet Juvenal went further, seeing it as the development of "a sound mind in a sound body" (*mens sana in corpore sano*). But the claim here is that while one might well argue that we should develop the body as well as the mind, to regard someone as well educated who is not particularly sound of body or who is physically fit but very ignorant betrays a lack of knowledge of the English language.

From this point on, the analysis is far from merely linguistic. It will be *argued* that our capacity to think propositionally, which enables us to hypothesize, predict, and so on, and which (despite claims to the contrary) appears to be shared by no other species, is the essential characteristic of our mind and that we should develop this capacity for its intrinsic and its extrinsic value and because it is, as Aristotle put it, "our defining excellence." To develop the mind is one and the same thing as to develop our understanding.

Peters's substantive claims about education now come into play. The understanding of the educated person is not just any understanding—we would not call a pickpocket well educated just because he knows how to pick pockets successfully. More generally, we consider the educated person to be one who has more than "knowledge how to . . . ," more than a repertoire of skills, but rather has understanding of "the reason why of things." At this juncture, two points should be noted about Peters's method; he has been criticized for his use of phrasing such as "we would not call . . ." or "we would not say" on the grounds that this is simply to report on the way that he and his friends happen to express

themselves. But it is surely clear that he does not mean by such phrasing "as a matter of empirical fact nobody does say this"; rather, he means to invite readers to consider whether it makes sense to them to talk in such a way, confident in the view that honest reflection will lead to the conclusion that it doesn't make sense. Second, Peters actually tends to talk more of knowledge than of understanding. The latter can be seen as preferable since it is more open; one can understand things that are not true, for example.

On Peters's view, the characteristics of the understanding displayed by the educated person, besides involving principles of reasoning, are that it is broad, involves commitment to the standards inherent in a given type of inquiry (e.g., the scientific method), is transformative, and involves "cognitive perspective." By these terms, he invites us to consider and assent to the suggestion that being a brilliant scientist or a brilliant musician, while admirable in itself, is not the same thing as being well educated, essentially because it is a narrow proficiency, whereas we expect a well-educated person to have a range of understanding across a broad spectrum. Knowing much science but being unconcerned about the proper conduct of scientific inquiry and uninterested in whether scientific claims are legitimately grounded is another mark of a less than successfully educated person, and to acquire knowledge but allow it to rest "inert" in one's mind, available for regurgitation when required, but otherwise meaningless in that it does not inform or affect one's outlook on life in any way, is to be well informed rather than well educated. Similarly, to acquire various items of knowledge but to keep them compartmentalized in such a way that one's philosophical understanding, say, does not cross-fertilize and inform one's scientific understanding, or one's historical understanding fails to actually inform any of one's other dealings in life, is again to suggest one is well informed rather than well educated.

Of course, Peters has not proved these points in the manner of the scientist or mathematician, but then these are not scientific or mathematical claims. The question is whether, given that *education* is a value-loaded term referring to the development of understanding, we agree on reflection that these are broad conditions that we would want to write into the concept. Looked at in that way, it is hard to see who would wish to dissent—who, that is to say, would wish to argue,

> My conception of education is such that I want my children to have a narrow range of understanding, to let their knowledge lie inert, to be unmoved by the rules of scientific or philosophical thinking, and to be indifferent to the interrelationship and the illumination that various subjects may shed on each other. In my view, an educated person should be narrow of mind and unaffected by their understanding.

The final point made is that the understanding that the educated person possesses should be worthwhile rather than trivial or merely commercial. Here we enter new territory, for while few will dispute that the knowledge should be worthwhile, clearly people do dispute about what knowledge is worthwhile. Peters's approach was to argue for the importance of the basic building blocks of knowledge generation, such that educated persons are those whose understanding of things such as science, math, and philosophy empowers them to continue to expand their understanding and enables them to make wide and fundamental choices about how to live. Peters's own work was here considerably abetted by the work of many of his colleagues (the so-called London line), including Paul Hirst's (1974) work on forms of knowledge, Robert Dearden's (1968) work on autonomy, and John White's (1973, 1982) work on giving people the wherewithal to make their own life decisions.

Today, the catchphrase that most obviously encapsulates a similar conception of education is "development of critical thinking." But one must be cautious; while Peters would certainly have agreed that the educated person should be a critical thinker, many of those involved with the critical-thinking business—and this takes us right back to the beginning—appear to have given no thought to their conception of a successful education. For them, critical thinking is seen as little more than adopting a set of mechanistic procedures—devoid of reference to, and in practice divorced from, any particular range of worthwhile subject matter.

The ultimate value of having a clear concept of education is that it provides the road map for all further inquiry: Without such a concept, we do not know what would count as success and we do not know where we are going. Talk of "educational standards," for example, is meaningless unless placed in the context of a convincing conception of education. It also enables us to note subtle distinctions between education, training, and socializing, which, in turn, allow us to see that a lot of so-called educational proposals are not in fact educational at all. This is a matter of great practical importance, for failure to make such distinctions often leads people to make

suggestions that may be important but do not actually contribute to education. Teaching people to drive, for example, may be a useful thing to do but it clearly has nothing to do with educating them.

Perhaps the discussion above will lead some to say that they are not interested in education so much as, say, training in marketable skills, socialization, or developing self-esteem. But that is preferable to the current state of affairs in which we do not realize that we are arguing about different things. Distinguishing between education and socialization or training in this way also enables us to distinguish between the ideal of developing ourselves as individual persons, as human beings, on the one hand, and regarding people as merely economic or social units on the other; and perhaps most important of all, it stops us from forgetting or ignoring the former in our increasingly materialistic world.

Robin Barrow

See also *Bildung*; Continental/Analytic Divide in Philosophy of Education; Peters, R. S.; Scheffler, Israel; Wittgenstein, Ludwig

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EDUCATION, TRANSCENDENTAL JUSTIFICATION OF

Transcendental arguments are basically philosophical responses to *skeptical* claims or arguments. Skeptical arguments are sweeping metaphysical claims to the effect that certain common assumptions about the world as ordinarily apprehended or experienced are either mistaken or (more commonly) without any possible rational foundation. Thus, for example, major philosophers have doubted that human agency can ever be (in any sense) free—whether (we can know that) there are other minds besides our own or, most notably, whether there is any external world of objects or facts corresponding to our apparent perception or experience of such a world. Arguments of a broadly transcendental character are a priori or conceptual claims—in other words, claims or arguments that do not depend on empirical evidence—aiming to show that such skeptical conclusions are logically incoherent, usually by virtue of assuming or presupposing what they purport to deny. An early example of this broad strategy can be found in Socrates's attempt to refute the claim of Protagoras, that since all so-called knowledge is based on subjective perception or sensation, there can be no such thing as objective (mind independent) truth. Plato points out that this (skeptical) claim seems paradoxical, since, if we agree to it, then we are effectively accepting that it is *true*—in which case, it is *false* that there is no truth.

What have usually gone under the name of transcendental arguments, however, are more commonly associated with the great Enlightenment philosopher Immanuel Kant, who sought, above all, to refute David Hume's skepticism about the possibility of objective knowledge of the world of experienced reality. Hume doubts that our experience of a world of real objects and events ordered by relations of cause and effect—or at least our claims to knowledge of this—can ever be rationally justified. Like Protagoras, he claims that it is not in principle possible to get beyond "subjective" human experience to any rationally justified knowledge of "external" or "objective" reality. Kant's classic transcendental arguments are concerned to show that any such position is riddled with incoherence and inconsistency. One major Kantian point against Hume's skepticism is that even to insist that our experience of the world is "subjective" rather than "objective" is (implicitly) to presuppose distinctions between the "subjective" or "internal" and the "external" or "objective" to which the skeptic is hardly entitled. In this regard, Kant is usually credited with having pioneered arguments (much employed by later analytical philosophers) from "polar opposites." For the skeptic to argue that *all* experience is "subjective" or

"psychological" is rather like arguing that *all* currency is counterfeit: For just as the idea of counterfeit currency relies on a contrast with *real* money, so any coherent talk of subjectivity surely presumes some contrast with what is objective or precisely *not* subjective. Put another way, if all experience is subjective, then *none* is. At all events, Kant's transcendental arguments seek to identify or expose the conceptual presuppositions—of objectivity, identity, and causality—common *both* to familiar claims to knowledge *and* any and all skeptical doubts about the possibility of such knowledge.

In modern analytical philosophy of education, transcendental arguments have been employed—mainly, as might be expected, by educational philosophers manifestly influenced by Kant—for two main purposes: first, for the rational justification of the practice of education as such and, second, to support or justify a particular educational curricular content that prefers or prioritizes the teaching of some kinds of knowledge and activity over others. The first of these issues is given high profile by the chief architect of postwar British analytical philosophy of education, R. S. Peters, who is precisely concerned—in an explicitly Kantian way—to refute any skeptic who seriously questions the value of education. The gist of this issue—to simplify an often complex, digressive, and not notably pellucid literature—is that any such skeptical questioning of the value of education must presuppose some commitment to the human value of rationality of the kind that education is precisely in business to promote. The key point is that any serious question—such as about what one should do or how one should spend one's time—must be a request for reasons for doing this or that which demand rational and informed (or rationally informed) answers. This rather general argument about the value of reason is then (variously) developed in the direction of the second point that to be capable of serious rational response to any (skeptical or other) question one needs to be equipped with certain very specific kinds of intellectual resources of knowledge and understanding.

At all events, it is against this background that certain highly influential "a prioristic" approaches to curriculum theorizing emerged in the latter half of the 20th century. Such views were "a prioristic" precisely insofar as they saw no need to appeal to empirical contingencies—of individual psychology or socioeconomic circumstance—in order to determine the basic content of any educationally justifiable school curriculum. On the contrary, the main constituents of any defensible school curriculum could be deduced or determined—in something very like Kantian fashion—as the necessary constituents or ingredients of any conceivable *full* human rationality (insofar as reason was also held in the manner of Aristotle and Kant to have diverse purposes). Thus, on perhaps the most influential version of such curriculum theorizing—the so-called forms of knowledge thesis developed by Peters's colleague and collaborator Paul Hirst—a genuinely educational school curriculum should aim to promote the forms of logical/mathematical, natural scientific, human scientific, moral, aesthetic, philosophical, and religious knowledge and understanding (variously packaged in school "subjects") fundamental to and/or constitutive of human rationality. Although Peters's use of transcendental argument to refute the educational skeptic has attracted its fair share of criticism, it would appear that such "a prioristic" curriculum theorizing has drawn most of the fire—mainly from "poststructuralist" and "social constructivist" educational philosophers who insist (much in the spirit of 19th-century post-Kantians) that there can *be* no such necessary forms of human rationality. However, while it is likely that both sides of this case have been unhelpfully overstated, this cannot be pursued further here.

David Carr

See also Kant, Immanuel; Knowledge, Structure of: From Aristotle to Bruner and Hirst; Peters, R. S.

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EDUCATION PRODUCTION FUNCTIONS

Education production functions are an application of the production function concept from economics to educational outcomes. Production functions relate the output produced to the inputs used and were first proposed as descriptions of manufacturing and agricultural processes in the late 19th century. Applications to educational outcomes and institutions began in the late 1960s. Initially, traditional economic concepts such as economies of scale were investigated, followed by estimates of economic efficiency for different educational institutions from elementary schools to colleges and universities. A major finding is that socioeconomic characteristics of students appear to influence educational outcomes more than the resources available to institutions do, although measurement problems confound efforts at general conclusions. This entry describes the development of production function techniques in economics and then reviews their application to educational outcomes at the elementary, secondary, and higher education levels.

Cost and Production Functions in Economics

The idea of production functions, in which the output produced by a production process is expressed as a mathematical function of the inputs used, was first developed in the late 19th century. A major innovation was introduced in the mid-20th century with the development of duality theory. Duality theory demonstrates that any production function with certain common mathematical characteristics will generate a dual cost function with other known characteristics. This cost function relates the cost incurred in production to the quantity of output produced and the prices of the inputs used. As a result, researchers can discover the underlying characteristics of a production technology by direct estimation of a production function or indirectly through estimation of a cost function. This allows the researcher to choose a cost or production approach based on data quality and availability.

Further development of computer hardware and econometric software in the 1960s, along with the discovery of flexible functional forms, made the estimation of production relationships feasible to a wide range of researchers. Flexible functional forms take their shapes from the data and impose minimal constraints on the shapes or characteristics of the estimated functions. Two of the most popular forms are the quadratic and the transcendental logarithmic, or trans-log, a quadratic in the logarithms. Production or cost functions of these forms were initially estimated by parametric methods based on linear regression analysis. The resulting estimated functions revealed characteristics of the underlying production technology, such as the degree of economies of scale or scope and the ease of substitution among the inputs.

Production and cost approaches both had particular strengths. Estimated production functions directly yield relationships among the inputs and the outputs but cannot be used in cases of multiple outputs. Cost functions can handle multiple outputs but require input prices to be estimated.

Development of frontier methods in the late 1970s and 1980s allowed the measurement of efficiency across establishments. Previously, cost and production functions were limited to estimates of the average or mean production characteristics of the establishments for which data were available. Frontier methods estimate the efficient production possibilities or cost frontier based on the most efficient establishments in the data and generate estimates of (in)efficiency relative to this frontier for the less efficient establishments. Economies of scale and other characteristics of the efficient frontier are also generated.

Two new econometric methods were also developed to estimate cost or production frontiers. Stochastic frontier estimation is a parametric, regression-based method that allows for deviations from the frontier due to random events as well as deviations due to differences in efficiency. Data envelopment analysis (DEA) is a nonparametric method based on linear programming that assumes that any deviations from the frontier are due to inefficiency alone. The strength of stochastic frontiers is its ability to account for random factors, but its weakness is that the estimation program may fail to converge when there are large numbers of inputs or outputs involved. DEA, in contrast, can handle large numbers of inputs and outputs but cannot account for the effects of random events. Neither method is ideal, but both methods have their proponents.

Applications to Education Production

Elementary and Secondary Education

Application of cost and production function estimation to data on schools quickly identified several fundamental difficulties. First, resources in the form of inputs or expenditures were only weakly related to measures of student achievement (output), if at all. The tendency for poorly performing schools to receive more funding, called simultaneity bias by economists, contributed to this finding. Moreover, even these weak links between resources and outcomes often disappeared when family background was taken into account. This pointed out the importance and the difficulty in measuring differences in ability and social capital across students. Unmeasured ability, social factors in the home environment, and the characteristics of peers were identified as potential contributors to these results.

Other measurement problems over and above the difficulties associated with ability measurement were also identified. The output measures, for example, are often test scores on standardized tests. These can be unreliable indicators of performance and are typically incomplete, assessing math and reading skills, for example, while ignoring science and civics. Furthermore, test scores are an imperfect measure of the *value* of education. Studies that examine the relationships between test scores and the adult wages of former students find little or no statistically significant connection.

Furthermore, simultaneity or endogeneity problems also cropped up. The observed correlation of student outcomes with teacher experience, for example, may reflect the ability of more senior teachers to choose assignments at schools with better resources or that serve higher-achieving student populations. If wealthier students stay in school longer and earn more later in life because of their family connections, independent of their education, while also demanding smaller class sizes, then a spurious correlation could be observed among school resources, educational attainment, and earnings. The attraction of stronger students to schools with greater resources could generate similar spurious associations.

Despite these difficulties, the literature on educational production grew along two paths. In the first, a single performance measure (test scores) is related to school district level inputs and student demographics. Parametric or nonparametric (DEA) frontier techniques are used to construct relative efficiency measures from the output and input data, and these (in)efficiency measures are then regressed on demographic variables. Variations in the demographic variables are found to "explain" the variations in relative (in)efficiency. Some studies invert this process, relating expenditures per pupil to test scores and demographic variables, with essentially comparable results.

The second path relates performance measures to political variables (local vs. state control, school or district choice, unionization) as well as to demographic characteristics. Variables reflecting the degree of local control and/or ability of individuals to choose among various school districts are positively related to test scores and negatively related to expenditures, leading some to conclude that competition makes schools more efficient.

Consequently, what we know about elementary and secondary educational productivity is limited and subject to many qualifications. Higher-ability or better-prepared students appear to score higher on tests. Variations in educational inputs do not appear to influence test scores or expenditures per pupil as much as do variations in the demographic backgrounds of students. Institutional settings in which households may choose among public educational providers are associated with higher test scores and lower per pupil expenditures.

Higher Education

Parallel to applications of educational production function methods to elementary and secondary schools were similar applications to colleges and universities. Initial studies of higher education, however, were not so concerned with student outcomes as with the use of resources, often emphasizing economies of scale and using output measures such as numbers of students or full-time student equivalents. Frontier methods allowed researchers to investigate the relative efficiency of higher education institutions but quickly confronted problems in measuring the relevant outputs.

Initially, this involved measurement of the teaching and research functions that led to difficulties in distinguishing quality differences across institutions. Similar measurement problems soon arose with respect to the quality of educational programs in various fields, the quality of student peers, and the value of sports and extracurricular programs, not to mention the quality of student outcomes. Input quality measurement issues also arose with respect to faculty and facilities, including dormitories.

Institutions with medical and professional schools or large numbers of graduate students further complicated efficiency comparisons.

After 2000, the emphasis of higher education production studies shifted toward student outcomes and pricing. Unlike schools in the lower grades that are often tied to geographic districts, colleges and universities operate in a differentiated product market setting over wide geographic areas in which students choose institutions for their programs as well as prices and other activities. The rising price of college educations prompted researchers to examine the performance of institutions with respect to outcomes such as graduation rates and prices rather than costs.

The diversity of higher education institutions permits little summarization of results. Community colleges are the lowest-priced institutions and may appear efficient but are lower quality. Large flagship public universities often score high on affordability and quality, but this may be due to state subsidies. Private colleges and universities often have particular programs that are high quality, or offer smaller class sizes, but their higher prices and smaller range of degree offerings often cause them to appear less efficient.

Given the public's interest in encouraging more students to pursue higher education and the difficulties in measuring quality, future research in higher education is likely to focus more on affordability (pricing) of institutions and performance measures such as graduation rates and student success after graduation.

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See also Abilities, Measurement of; Coleman Report; Higher Education: Contemporary Controversies; High-Stakes Testing; Quality of Education; School Choice

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EDUCATIONAL MEASUREMENT AND ASSESSMENT

See Abilities, Measurement of; High-Stakes Testing; Intelligence: History and Controversies

EDUCATIONAL RESEARCH, CRITIQUES OF

Well-warranted critiques are fundamental to sound research. While much critique focuses on single studies or sets of studies (via peer review), the focus of this entry is on broader critiques of the field of education research, of different approaches within the field, and of recommendations for what the field should become. Different "approaches" to research can be defined variously by substantive area, by discipline, by methodology, by philosophical perspective, or by some combination of these. Sometimes, critiques of education research are explicit; sometimes they are implicit in recommendations for reform; and critiques of both types are considered here. All are historically situated, responding to a particular set of circumstances at a particular time, and are best interpreted in light of those circumstances.

During the past few decades, the nature and quality of educational research has been the subject of much debate around the world, most notably in Australia, New Zealand, Western Europe, the United Kingdom, and North America; similar issues have been aired in these diverse literatures, scholars from diverse intellectual traditions have been involved, and in many countries, the debates have become politicized. This entry will focus on a selection of key critiques (and recommendations) surrounding what has been called "the education

science movement" published between 1999 and 2012 in the United States (but many of these sources have been cited internationally and reflect themes that are prominent in debates elsewhere). The discussion will include critiques reflected (a) in the U.S. Department of Education's (ED) evolving priorities and implementation strategies, (b) in federal legislation defining "rigorous" or "scientific" research, (c) in reports from expert committees or advisory boards assembled to advise the ED and Congress at different points in time, and (d) in published responses to these documents from scholars in the field of educational research. Interrelated critiques from these various sources will be presented in a chronologically ordered narrative. Key issues underlying the debate reflected in these documents include the following: whether science or rigor can be defined in terms of particular methods; whether randomized experiments reflect the "gold standard" for education research or, more narrowly, research addressing questions about "what works?"; how the particularities of local contexts should be taken into account in conducting and using research; what role the federal government does and should play in setting research policy; how education research can be made more relevant and useful to policymakers and practitioners; and what the appropriate role of science in education practice should be.

As illustrated below, common words such as *rigor*, *utility*, *relevance*, and even *science* are used in different ways in different critiques. To understand what the word means in a given critique requires careful reading of the elaborations and examples—where they are provided. Furthermore, there are often competing interpretations of the same critique and of the phenomena that are being critiqued. The goal of this entry is to provide as fair an overview as possible of the issues reflected in a range of published critiques of education research (1999–2012), briefly illustrating those critiques with close paraphrases from selected texts and foregrounding themes and differences among them. Any evaluation of how well warranted or fair the critiques are is beyond the scope of this entry.

Critiques of Education Research From Expert Panels (1999)

In 1999, three expert panels published separate reports intended to advise ED and Congress on research policy and priorities. These reports are from the National Research Council (NRC)—an arm of the National Academies of Science and Engineering and the Institute of Medicine; the National Academy of Education (NAE); and the National Education Research Policy and Priorities Board (NERPPB)—the members of which were appointed by the secretary of education. It is important to note that the NRC and NAE panels were established by independent scholarly organizations intended to be free from political interference. While these reports had somewhat different emphases, they foregrounded many of the same themes in their critiques and recommendations. Each grounded their critiques in an acknowledgment of the potential of education research and complexity of the education enterprise to which it contributes.

The NRC panel argued that the potential of education research had not been realized: The existing research base was underused and inadequate and educational policy decisions were often based on personal experience and ideology. They noted that only a few lines of research had been sustained for the time needed to bring them to fruition. They attributed this in part to the complexity of the education enterprise and in part to underinvestment and insufficient resources, to lack of focus in research investments, and to difficulties in translating research to inform practice. Their recommendations for a strategic education research program (SERP) included the establishment of networks of researchers, in partnership with practitioners and policymakers, focused on a limited number of topics of crucial importance to students' learning. They called for combining insights from many fields, including those that addressed cognitive functioning, social processes, and organizational change, and for deploying a full array of research methods. They called as well for involving practitioners and policymakers in helping define problems, devise solutions, and monitor the effects of research-based programs to make integration of research findings a routine aspect of education practice. The SERP proposal was extended and further specified by NRC in 2003.

The 1999 NAE and NERPPB reports reached similar conclusions about the need for greater investment in education research, for a problem-focused research agenda that resulted in cumulative and sustained lines of research, and for enhancing the use of education research by practitioners and policymakers, although they foregrounded somewhat different critiques and recommendations.

The NAE report, which was commissioned by the NERPPB, raised the concerns about research that

studied students' and teachers' learning isolated from contexts and from efforts to improve educational processes. The authors explicitly criticized the linear assumption that "researchers produce knowledge about general principles, program developers apply that knowledge in design of instructional materials and programs, and local educational professionals implement those programs," citing problems of translation among these various communities. They called for a new model of the relationship between education research and improvement focused on solving specific current problems of practice and, at the same time, developing and testing general principles expected to apply more broadly.

The ED's NERPPB report, which cited the NAE report, differed somewhat from the other two reports by including "weak designs and measures" and disagreements among researchers as contributing to concerns about the adequacy and the usefulness of education research. The board called for more rigor in education research through defining appropriate research designs (that included randomized experiments and other designs involving control group methodology when randomization is not possible) and improving the quality of peer review panels and procedures. To enhance the impact of education research, they called for better means of translation and dissemination, including reliable research syntheses, for shared accountability between researchers and practitioners in improving research practice but not (at least to the same extent) for practitioners sharing in the research process as the NAE and NRC reports had done.

Implied Critiques of Education Research in Federal Legislation (1999–2003)

Federal legislation between 1999 and 2003 attempted to enhance the use and conduct of research in more specific ways than recommended by the expert panels. The 1999 Reading Excellence Act and the 2001 No Child Left Behind Act (NCLB) focused on enhancing the *use* of research: Both required those who purchased instructional programs with federal funds authorized under these acts to use programs that had been evaluated using scientifically based research (SBR). While the definition of SBR in the Reading Excellence Act was quite general—using terms like *empirical methods* and *rigorous data analyses*—the definition in NCLB was considerably narrower. The definition of SBR in NCLB named "experimental and quasi-experimental

designs in which individuals, entities, programs, or activities are assigned to different conditions and with appropriate controls to evaluate the effects of the condition of interest, with a preference for random-assignment experiments." This definition has been credited with elevating randomized controlled trials to a perceived "gold standard" for education research and rigorous science, a controversial issue addressed below.

The bill proposed to reauthorize ED's Office of Educational Research and Improvement (OERI), commonly called "the original Castle Bill," shifted the legislative prescriptions regarding SBR to researchers themselves. The proposed language limited research programs that could be funded to those that fit within the bill's definition of SBR. The definition listed methods separately for qualitative and quantitative research, foregrounding experimental and quasi-experimental design for quantitative research and associating qualitative research primarily with traditions historically based in the humanities. The bill described qualitative methods as "intended to explore issues and hypotheses whose underlying dynamics and factors are not sufficiently well refined, understood, or amenable to experimental control to permit adequate study through quantitative research." Ultimately, the 2002 Education Sciences Reform Act (ESRA), which replaced OERI with the Institute of Education Sciences (IES), offered a somewhat revised definition of SBR. The ESRA contained a single definition of SBR that did not distinguish between qualitative and quantitative SBR, that called for methods to be appropriate to the research questions posed, and that limited the call for random assignment experiments (or other designs that eliminate rival explanations of effect) to research addressing causal questions. These differences have been attributed by some to the influence of a widely cited 2002 NRC Report, *Scientific Research in Education* (*SRE*).

NRC's 2002 *Scientific Research in Education*

At the invitation of the ED's NERPPB, the NRC assembled a committee to address the question of what constitutes scientific research in education. The committee published its report *SRE* in 2002. The *SRE* authors responded critically to the proposed legislation in the original Castle Bill to reauthorize OERI defining SBR in terms of methods. They argued that mandating a list of methods erroneously assumed that science is mechanistic and that

procedures can be prescribed. Against this vision, they argued that it was the self-regulating norms of the scientific community that enable scientific progress. The authors argued further that qualitative and quantitative research are quite similar epistemologically (i.e., in terms of their conceptions of knowledge), that both can be pursued rigorously, and that the research question being pursued should determine the methods used. In response to their charge, *SRE* authors offered, instead, a set of guiding principles that they argued underlie all scientific research. Those engaged in scientific research

1. pose significant questions that can be investigated empirically,

2. link research to relevant theory,

3. use methods that permit direct investigation of the question,

4. provide a coherent and explicit chain of reasoning,

5. replicate and generalize across studies, and

6. disclose research to encourage professional scrutiny and critique.

The authors highlighted the importance of attending to the particulars of contexts in addressing the extent to which theories and findings may generalize to other times, places, and populations. The report named three important types of research questions: (1) What is happening? (2) Is there a systematic effect? (3) How or why is it happening? In a cumulative program of research, only the second of these was best pursued by way of experimental designs. However, *SRE* arguably privileged programs of research that culminated in the establishment of replicable causal effects (idealized in randomized experiments) and positioned "descriptive studies" as preliminary or supplementary to this task. *SRE* also offered a set of design principles for fostering science in a federal education agency that are intended to nurture a scientific culture. Thus, the report offered policymakers an expanded and more flexible conception of science, one that locates authority for scientific rigor within the scientific community and that envisions an important role for certain types of qualitative research within a comprehensive and cumulative research agenda.

IES Critiques and Priorities (2003–2008)

While the differences between the ESRA's definition of SBR and that in the original Castle Bill have been attributed to the influence of *SRE*, the priorities proposed for the IES in 2003, articulated in the IES director's first Biennial Report to Congress (2005), appeared to give the game away. They privileged cause-and-effect studies, especially randomized experiments, and IES launched an aggressive program to increase the prevalence of such studies.

As articulated in his Biennial Report to Congress (2005), the IES director, Grover J. (Russ) Whitehurst, saw education research as badly in need of reform. Briefly citing the 1999 NRC report, he critiqued education research in terms of its rigor, relevance, and utility. For rigor, he asserted that "far too much research is based on methodologies that cannot support the questions that are addressed" and offered as general examples interpretive and qualitative methodologies and correlational studies that drew (inappropriately) causal conclusions. He then called for rigorous analyses of cause and effect using randomized trials and related methods. For relevance and utility, he called for research that addressed practical problems of policymakers and practitioners and that made results available to users in easily understood forms. Again, cause-and-effect studies were foregrounded as those most relevant and useful to practitioners.

The priorities outlined in the report to Congress were aggressively implemented within IES's scope of authority. These were reflected, per the director's reports, in funding announcements, guidelines for peer review, and funding decisions; in federally funded training programs for researchers; in guidelines for research syntheses developed by the federally funded What Works Clearinghouse, which was intended to make the results of rigorous cause-and-effect studies easily available to practitioners; and, as discussed in the report to Congress, in "differential consequences for decision makers whose choices are or are not grounded in evidence."

A 2008 evaluation commissioned by the National Board for Education Sciences (the IES advisory group that replaced NERPPB) confirmed that IES has succeeded in increasing the proportion of efficacy and scale-up studies that met the department's methodological standards for causal inquiry. This supported their conclusion that rigor had been enhanced. Thus, rigor became equated with cause-and-effect studies idealized in randomized experiments. This was a substantially different outcome from what had been proposed by the 1999 NRC and NAE panels, both with respect to the role of policymakers and practitioners and the cumulative problem-focused orientation that drew productively

on multiple methodologies. With respect to relevance and utility, the authors of the National Board for Education Science report noted increased access and dissemination but suggested that the evidence based on knowledge utilization by practitioners was insufficient to draw conclusions. The priorities and policies of IES clearly had some impact on the shape of the field and led to a new round of critiques.

Scholarly Critiques of Federal Legislation, *SRE,* and IES Priorities and Policies (2002–2009)

Following the publication of the NRC's *SRE* and the dissemination of IES's priorities, a number of scholars offered critiques of the visions of education research reflected in those documents and enacted in IES's agenda. Some saw *SRE* and federal efforts as quite distinct, with the *SRE* defending the autonomy of the scientific community against methodological prescription; others saw these efforts as part of the same federal overreach (NERPPB had funded NRC to develop *SRE*) into the practice of education research.

To provide a sense of the range of critiques, this section is organized by selected topics on which different scholars took critical positions, beginning with the role of randomized experiments in causal research, the so-called gold standard; then addressing alternative approaches to research; and finally turning to the relationships between the research community and other stakeholders (including education practitioners, policymakers, the federal government, and the public).

Critical commentaries surrounding IES priorities, federal legislation, and *SRE* were published in special issues of four journals shortly after the publication of *SRE*, and these journals have continued to publish critical commentary from time to time: *Educational Researcher* (2002), *Educational Theory* (2005), *Qualitative Inquiry* (2004), and *Teachers College Record* (2005). Readers can locate articles by proponents of various perspectives in these journals, beginning with the special issues on *SRE* cited, and searching subsequent issues for key citations (e.g., of *SRE*) or terms used in the debate (e.g., "gold standard," "scientism") or by reading one of the general reviews listed at the end of this entry ("Learning From Our Differences" or *Education Research on Trial*).

Randomized Experiments, the Gold Standard, and Causal Inquiry

One major issue that arose focuses on the extent to which randomized experiments represent a "gold standard" for causal research or scientific research more generally. Does an increase in randomized experiments signal a move toward rigor? Randomized experiments assign persons or other units of analysis randomly to groups that do and do not experience the intervention. The goal is to allow researchers to attribute postintervention differences between groups on an outcome or effect to the intervention and not to alternative factors that might otherwise explain the outcome (e.g., that the groups differed to begin with in ways relevant to the outcome).

Some read federal legislation and IES priorities as implying that randomized experiments represented the gold standard for scientific research, whereas others, including the authors of *SRE*, saw randomized experiments only as ideal for research addressing causal questions. They acknowledged that there were other ways of addressing causal questions and other types of questions that could and should be rigorously pursued with alternative methods. Some noted that randomized experiments were often difficult to mount, for both practical and ethical reasons, and called for other research designs—quasi-experiments—that used other means to control factors other than the intervention that might explain the effect. Some noted further the importance of alternative methods—survey research, qualitative methods of various sorts—to complement experimental designs supporting, for instance, questions about the extent to which an intervention was implemented as intended or about the mechanisms that led from the intervention to the effect. Some argued further that causal questions could be rigorously—perhaps more rigorously—addressed through qualitative research by tracing these mechanisms and by examining the myriad local factors that mediate the relationship between a treatment and an effect (e.g., a school's administrative policies or resources; the press for achievement evident in the school's culture).

A related issue was whether or not multimethod programs of research should be expected to culminate in causal studies of systematic effects as *SRE* was interpreted to conclude. Given the complexity of social phenomena, including those relevant to education, generalizations about which interventions "work" were seen by some, at best, as hypotheses for any given school or classroom. Examples were cited showing interventions that produced an effect in one context but failed to produce the same effect in another. To understand how an intervention works, it was argued, requires an understanding of

the sense people make of it, individually and collectively, and the ways in which it interacts with other features of their environment to shape their practice. Some questioned whether causal inquiry is appropriate at all for social inquiry, given the power of local contexts to shape understanding and practice. These scholars called for somewhat different approaches to education science or research.

Alternative Approaches to Education Research

Another key issue was whether this vision of science put forth in *SRE* adequately addresses the complexity of social phenomena. While most scholars, including the authors of *SRE*, acknowledged the importance of understanding human intent and meaning and the role of local contexts in education research, the question is what this implies about how science or research should be conceptualized. Are the generalizing goals of science (systematic effects) privileged by *SRE* adequate or even appropriate for the human or social sciences?

By offering a single set of principles that "underlie all scientific inquiry," the *SRE* panel had taken sides on a long-standing debate in the philosophy of social science about whether or not the social sciences should approach the study of social phenomena in the same way the natural sciences have approached the study of natural phenomena. For example, those who take what is sometimes called an interpretive approach to social science argue that social phenomena differ from natural phenomena because they are meaningful to the actors involved. Furthermore, meanings are seen as embedded in complex social contexts that shape (enable and constrain) what can be understood, sometimes in ways that the actors involved may not perceive. From this perspective, a primary aim of social science should be to understand what people mean and intend by what they say and do and to locate those understandings within the historical, cultural, institutional, and immediate situational contexts that shape them. This conception calls into question the meaningfulness of generalizations about what works, including how science works to inform practice! These scholars called for the development of theory that would address why and how local context matters. Conceptions of generalization or relevance should be expanded to include how researchers and practitioners could learn from always partially unique cases of practice that did not gloss over contextual differences as studies of systematic effects did.

Some questioned further the all-consuming press for SBR, arguing that the arts and the humanities, including philosophical analyses, offered important contributions to education research or scholarship and deserved more emphasis than they had received in *SRE*.

While some critiques called for diversity in the practice of education research, a different set of critiques raised the concern that fragmentation within the field limited the ability of researchers to develop a cumulative research agenda addressing key educational problems. One set of authors called for a deeper understanding of the networks through which researchers build on each other's work to enhance collective practice. Another called for data sharing to support replications. Many foregrounded the role of dialogue among researchers across different approaches to research to promote mutual understanding and collaboration and pointed to important roles for higher education and research organizations, alongside the federal government, in promoting such understandings. Some saw this as a move toward a much-needed consensus on what counts as good science; others framed the role of dialogue as providing an opportunity to learn from different approaches in addressing educational problems.

Some scholars thought that the authors of *SRE* has accepted their charge too uncritically, treating research as a neutral, technical enterprise that could provide clear answers to educational problems. Against this "white coat" view of science (sometimes referred to as "scientism"), these scholars called for a more realistic view of what scientists do and of how science influences and is influenced by education policy and practice. Some argued that scientific practice could only be evaluated from inside a particular approach or domain. This called into question the meaning of the generalizing critiques of rigor in education research writ large and even of generalizing principles, like those in *SRE*, since terms like "significant questions" or "generalizations" take on different meanings in different domains. Some raised concerns that *SRE*'s vision of science did not illuminate the ways in which scientific practice was shaped by social relations and structures inside and outside the field. *SRE*'s blanket rejection of "postmodernism" as unscientific was criticized for failing to adequately represent the meaning of the term to those whose work might be located within it and also for rejecting a constellation of approaches to research intended to ferret out issues of power and

politics. A rigorous approach to science, it was argued, can and should illuminate the social forces that shape scientific practice. Rejecting alternative approaches out of hand risks limiting opportunities for critical reflection and innovation.

Relationship Between Researchers and Other Stakeholders

A closely related set of issues focused on the relationships between the research community and other stakeholders, including the federal government, practitioners, policymakers, and public. What is the appropriate role for these stakeholders in the research enterprise? How can and should they influence the practice of research? How can and should the practice of research influence education policy and practice?

Many scholars raised concerns about the extent to which IES's priorities and policies were limiting the potential of the field of education research. By aggressively pursuing causal questions presumed to address the needs of policymakers, federal policy was diminishing resources for basic and applied research agendas that might move the field forward—including the agenda of how science actually informs policy and practice. Some saw *SRE* as complicit in federal efforts to mold scientific practice to its own ends. Others, however, saw *SRE*'s arguments as a strategic move intended to maintain an opening for alternative approaches to research in an otherwise hostile climate. Most agreed that the role of the federal government should be to support cumulative research and rigorous peer review of research proposals (consistent with the norms of scientific practice) but not to mandate methods. Some noted, however, that the selection of peer-review panels—and the methodologies with which they are familiar—could also constrain in more subtle ways the methods employed in research that is funded.

Another question concerned the role of practitioners and policymakers in the research process. Some described the press for causal studies of systematic effects as a social engineering agenda that undervalued the role of local educators. By focusing on systematic effects, it risked restricting opportunities for participation in educational decision making by those in the best position to take local circumstances into account. Echoing the 1999 NRC and NAE reports, it was also argued that involving practitioners in the research process, as collaborators and not just as consumers, was a crucial means of

enhancing the relevance and the usefulness of education research.

Looking ahead, a 2012 NRC report titled *Using Science as Evidence in Public Policy* called for research on whether, why, and how science is or is not used as evidence in public policy. The framework recommended focused on a broad range of questions and methodologies to understand the complexity of the policy world; these included "understanding the assumptions underlying divergent policy framings, expert judgments, and consensus building techniques"; how practical reasoning is entailed in policy making; and how local contexts can influence the weight given to science through "institutional barriers and cultural resistance . . . and the role of moral and ethical beliefs."

Finally, a number of scholars raised questions about the appropriate role of the public alongside practitioners and policy makers in the research enterprise. These questions dealt with the dissemination and accessibility of education research, the extent to which research should inform and be informed by public debate about educational issues and solutions, and the ends as well as the means of education. Some scholars called for a public debate about the role of science in education, including questions about who gets to decide what counts as knowledge. Some highlighted the tension between scientific and democratic control of education research and practice: As education is a moral and political enterprise, its means and ends require democratic deliberation informed but not determined by science.

Evolving IES Priorities (2009–2012)

In 2009, a new director, John Q. Easton, was appointed to head the IES. This coincided with a change in administration from the conservative Bush administration to the more liberal Obama administration, which may help explain changes in emphases and tone of official policies about research.

As articulated in his first Biennial Report to Congress, the priorities Easton listed foreground relevance and usability by "developing new ways of facilitating the use of research," "building capacity in states and districts to conduct research," "developing a greater understanding of schools as organizations and how they can become learning organizations," and "creating stronger links between research, development, and evaluation." While maintaining a commitment to "rigor," the priorities cite key research questions that cannot

be addressed with cause-and-effect research alone and refer to a range of methods needed to address them. They define rigor in terms of "ensuring that the methods applied are appropriate to the questions asked and the results are valid and reliable." While this is not inconsistent with the first director's report, the elaboration of relevant methods makes it clear that rigor can encompass a wider range of methods and that these are necessary for enhancing relevance and usability. These include questions about how, why, for whom, and under what conditions they are effective. They also include questions that are not necessarily focused on interventions but those that seek to understand the characteristics of high-quality teaching; the processes of schooling through which policies, programs, and practices affect student outcomes; and so on.

These priorities appear to return to the sorts of recommendations made by the 1999 NRC and NAE panels 14 years earlier and began to address some (but far from all) of the scholarly critiques outlined above. Remaining most seriously unaddressed, it could be argued, are those critiques that call for illumination of the sociopolitical forces that shape the scientific practice and the ways in which the scientific practice both enables and constrains democratic deliberation about the means and ends of education.

Pamela A. Moss

See also Case Studies; Causation; Educational Science; Evidence-Based Policy and Practice; Experimental and Quasi-Experimental Designs for Research: Campbell and Stanley; Philosophical Issues in Educational Research: An Overview; Postmodernism; Postpositivism; Qualitative Versus Quantitative Methods and Beyond

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EDUCATIONAL SCIENCE

The term *educational science* is an umbrella term, used by educationists on the Continent, that covers research on education from many different paradigms. Following Thomas Kuhn's introduction of the concept of the paradigm, which he originally applied to the natural sciences, it has gradually become increasingly common also in other branches of science to identify several paradigms, each with its own understanding of science and its own concepts and methods. Due to their differing conceptualizations of science, these paradigms cannot be reduced to each other without incurring substantial loss of elements each regarded as essential and distinctive. This has been evidenced by the controversies on positivism, hermeneutics, and systems theory in which the scientific possibilities and limits of each

paradigm have been the subject of much debate. It has become clear that scientific research can only be adequately judged within the framework of the particular scientific paradigm on which it is based. It makes no sense, for example, to use the criteria of quantitative research to assess qualitative research or vice versa. Differing aims, concepts, and methods lead to different kinds of research and insights, which help increase the complexity of scientific knowledge. Transdisciplinary research is only possible if there is reciprocal acceptance of differences between paradigms. This also applies to indissoluble cultural differences between the basic assumptions of scientific paradigms. The management of these differences plays an important role in the globalized world.

The fact that educational science consists of different paradigms leads to a complex understanding of education and science. This is exemplified by the development of educational science in Germany in the 1970s, when educational science developed through the formation of three paradigms: (1) humanist pedagogics (*Geisteswissenschaftliche Pädagogik*), (2) empirical educational science, (3) and critical educational science. This entry discusses each of these three paradigms and their significance for educational science.

Humanist Pedagogics

Humanist pedagogics began to emerge as a discipline in the 1920s, based on the works of Friedrich Schleiermacher (1768–1864) and Wilhelm Dilthey (1833–1911). As a scientific trend, it had become established in the universities and the faculties of education by 1933. Among its most important representatives were Herman Nohl (1879–1960), Theodor Litt (1880–1962), Eduard Spranger (1882–1963), Wilhelm Flitner (1889–1990), and Erich Weniger (1894–1961). After World War II, this tradition was kept alive mainly by the Göttingen school, represented by Nohl and Weniger, where many of the leading scholars of the next generation (e.g., Wolfgang Klafki and Klaus Mollenhauer) were trained. According to humanist pedagogics, the basis of all scientific and theoretical knowledge has always been educational reality and educational practice, and thus, it defines itself first and foremost not as a theoretical discipline but as a practical discipline, characterized by the elements described in the next section of the entry.

Historicity and Culturality of Education and Educational Science

Dilthey emphasized the significance of history and culture and explained how human beings can only gain an understanding of themselves by interpreting history and culture. It is only with the help of the humanities—with their orientation toward history and comprehending human culture—that human beings can come to understand and define themselves. Humanist pedagogics places the emphasis on how history and the humanities are crucial in the shaping of human beings. Following Schleiermacher, humanist pedagogues such as Nohl and Weniger and their followers reasserted Dilthey's acknowledgment of the historicity and culturality of education.

The Significance of Hermeneutics for Educational Science

Based on the works of Schleiermacher and Dilthey, humanist pedagogues became interested in the hermeneutic process of comprehension. Dilthey's attempt to develop hermeneutics as a science of text interpretation (*Textwissenschaft*) and the comprehension of the "objectifications" (or products) "of mind" (e.g., institutions, school programs, educational action, etc.) was furthered by humanist pedagogics, which focused on historical texts as a source of hermeneutic knowledge. Among these texts are the rules, school regulations, biographies, and works of the "great" pedagogues. These were considered important objects of interpretation. The aim was to grasp their meaning in relation to their original contexts and to the history of their effects up to the present day. Insofar as these texts constituted a codification of the objectifications of the mind, interpreting them was expected to help comprehend objectifications of the mind from the period of their origination up to the present day. In humanist pedagogics, this process has been described as the hermeneutics of educational reality. Humanist pedagogics has made historical reconstruction and interpretation its goals and aims to achieve an understanding of educational reality as a significant whole.

Through Clifford Geertz's reception and further development of these ideas about the role of hermeneutics and meaning, in the past few decades, they have taken on an important role in American cultural anthropology. This, in turn, has led to their exerting a great influence on qualitative empirical research in educational science, through their use

in the ethnography of education, an area that has undergone rapid expansion. The 12-year Berlin Study on Rituals and Gestures, which was initiated and headed by Christoph Wulf and included one inner-city school and four fields of socialization, is a well-known example.

The Autonomy of Education and Humanist Pedagogics

Humanist pedagogics examined the question of the relative autonomy of education and educational science from two starting points. On the one hand, Schleiermacher, Dilthey, and Nohl tried to liberate educational science from its dependence on ethics and psychology and, thus, to define it as a specific and autonomous discipline. On the other hand, the relative autonomy of pedagogics had to be defined in order to uphold children's rights in relation to adults and the social groups influencing education.

The Educational Relationship

Nohl wanted to develop a theory of education based on the personal relationship that structures the encounter between teacher and student. In the same spirit, Dilthey had already emphasized that pedagogics can only start with a description of the educator in relation to the student. Dilthey, and humanist pedagogics as a discipline, saw the pedagogical relationship as the core of education. Nohl (1949) described as the basis of education a "compassionate relationship" between "an adult and a developing young person who attains his life and shape on his own" (p. 134). Education therefore occurs in the context of a relationship that exists "for the youth." In this relationship, the educator must defend the youth's individual right to development and self-realization against unjustified external interventions. From here stems the imperative of assuming pedagogical responsibility for youths, with a view to safeguarding their interests.

Theory and Practice in Education

Weniger believed that studying the relationship between theory and practice should provide better understanding of educational practices, their theoretical and political bases, and the practical aspects of education. For him, the object was to build a pedagogical theory that focused on practice and its development. The fact that pedagogical theory takes pedagogical practice as its starting point, and that it interprets and determines it, demonstrates that educational science is in essence a practical science. Pedagogics is understood as a practice for a practice.

Empirical Educational Science

Critical rationalism, as developed by Karl Popper, had a great influence on the epistemology of empirical research. Wolfgang Brezinka, for example, drew on it widely in the program for the "development of pedagogics towards educational science" that he designed in 1972. He developed a concept of the science of education whose purpose he saw as being to acquire knowledge and not to question the conditions under which data are generated or evaluated. Scientists are expected to produce knowledge, not to shape the world or influence human beings. The goal of a science is the investigation and analysis of reality. The unity of science is assured by two elements: first, its definition of its objectives and tasks and, second, the general rules of the scientific method. Defined in these terms, science can be differentiated from other fields of human activity, such as politics, economics, education, art, and religion.

Science is thus defined as a research activity oriented toward gaining insight into reality with the aid of the scientific method. However, conceptualized in this way, educational science cannot fulfill all the tasks to be dealt with in the field of education. Brezinka therefore expanded his program of educational science; in accordance with analytical philosophy, he supplemented educational science with the philosophy of education and practical pedagogics. He then divided educational science in the broad sense into educational theory and the historiography of education. The field of educational philosophy is also subdivided into the epistemology of pedagogical statements and moral philosophy. Practical pedagogics is defined as apprenticeship.

Critical Educational Theory

Breaking clearly with the traditions of humanist pedagogics and empirical educational science based on critical rationalism, another trend in the educational science evolved out of the paradigm of the Frankfurt School of Critical Theory, developed by Max Horkheimer, Theodor W. Adorno, Jürgen Habermas, Herbert Marcuse, and later Axel Honneth. Opposed to the humanist and empirical movements, the new orientation emphasized the social and the historical character of education and relied on a critical theory of society, science, and the subject. According to this perspective, educational

science must include—in its effort to achieve a reflexive self-understanding—an analysis of the social conditions that pertain. Critical theory originated as a negation of traditional thought; its purpose was to criticize bourgeois society and its scientific activity. It helped develop reference points for education and educational science, such as the concepts of enlightenment, emancipation, reification, criticism, society, theory and practice, and recognition.

Critical educational theory strives to be a theory of educational practice that is both of and for practice and includes constant self-reflection and self-criticism. Proponents of critical educational theory, such as Klafki, Mollenhauer, and Herwig Blankertz, saw its main aim as being to establish what is possible under given social conditions in order to ensure success and constant improvement of the education process. Critical education theorists consider humanist pedagogics and empirical educational science to have deficits that leave these paradigms without a basis for conducting a critical analysis of the societal development of education. In their view, ideological criticism is needed to examine the process by which political and economic structures exert an influence on education. Ideological criticism exposes the social conditions of production and calls attention to erroneous rationalizations and the effects of the false interpretations, norms, and theories that result from a deficient understanding of the social situation and of the possibilities of intervening in this situation.

Conclusion

In cognizance of the complexity of child-raising and education, today's educational science encompasses knowledge that investigates educational reality and its deficits, takes a critical stance toward society, and is self-reflexive. It is oriented toward the hermeneutic and quantitative understanding of meaning. To do justice to the demands placed on education in the globalized world, educational science also needs to be founded on anthropology. This means including perspectives from the theory of hominization, philosophical anthropology, historical anthropology, and cultural anthropology in the conceptualization of educational anthropology. Another important task of anthropology in the globalized world is to help children and young people cope with the two major opposing trends toward homogenization and cultural diversity in the educational process.

Christoph Wulf

See also Anthropology of Education: Main Traditions and Issues; Critical Theory; Educational Theory, Nature of; Hermeneutics; Kuhn, Thomas S.; Popper, Karl; Postpositivism

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EDUCATIONAL THEORY, NATURE OF

Educational researchers usually do not give a great deal of attention to the nature of educational theory. In their research, they are focused primarily on working with particular theories that apply to

relatively delimited areas. For example, a great deal of research is done within the context of cognitive developmental theories, or theories about the relation between social class and educational attainment, and so forth, and it is merely assumed that these are *educational* theories.

Among the small number of scholars (including philosophers of education) who are interested in the nature of educational theories in general, two different and only slightly interacting traditions have evolved. One of these reflects Continental interests and ways of conceptualizing matters; the other reflects parallel influences from the English-speaking world. Addressing and comparing both approaches with the topic, this entry reconstructs several conceptions of the nature of educational theory and points to their limitations. The conclusions reached are that educational theory can barely be adequately conceptualized as a *scientific* theory and that it can only cautiously be regarded as a *practical* theory. Nevertheless, in the controversies between these two prevalent conceptualizations of educational theory, a third option has often been neglected, that is, seeing educational theory as a *constitutive* theory.

Educational theory, then, from the perspective adopted in this entry, is an attempt to conceptually constitute education as the formal object of a science of education or of educational studies. In doing so, it maps out the domain of education as a specific problem area and prepares the ground for its empirical investigation. Although a dictionary-type definition like this sounds authoritative, there is an ongoing debate about the nature of educational theory, especially about its relationship to educational practice, about the elements as well as the different types and functions of educational theory, and, finally, about the relationship between theory of education and philosophy of education. Rather than developing a particular theory of education, this entry briefly outlines some general dimensions of any educational theory. It begins by looking at Siegfried Bernfeld's definition of education as a societal response to the fact of child development and at Gert Biesta's identification of purpose, content, and process as constitutive elements of any educational theory. As indicated above, a particular focus of this outline is the distinction between a *scientific* theory, a *practical* theory, and a *constitutive* theory. Finally, it will be argued that by conceptually constituting education as a specific domain, a constitutive theory of education is able to develop a domain-specific theory of education in contrast to the approach of philosophy of education that is usually domain unspecific.

Elements of Educational Theory

Given the plurality of educational theories embedded in different historical and societal settings, talk about "the nature" of educational theory might be understood as an impossible universalistic pretension. Although a universal educational theory might, for good reasons, be unattainable, there are some elements that can be considered as the constitutive minimum of an educational theory.

According to Siegfried Bernfeld (1973, p. 32), education can be regarded as the sum total of a society's reactions to the fact of child development. This approach is universalistic and contextualized at the same time: Education is seen as a universal function of social reproduction across generations; at the same time, the responses to the fact of child development can take on different forms in different historical and societal contexts. Another aspect of Bernfeld's approach is remarkable: By regarding education as a "reaction," Bernfeld establishes that education presupposes the anthropological fact of ontogenesis, or individual development, which education takes up and directs but does not itself cause or initiate. Furthermore, Bernfeld's approach is not restricted to intentional education on the level of personal interaction but also includes functional education in institutional arrangements that are part of a society's reaction to the fact of child development. Summing up, there are at least two necessary elements of any educational theory: an anthropological element (the fact of child development) and a social element (the reactions of a given society).

Although these two elements of educational theory can hardly be disputed, the status of an approach like Bernfeld's is open to question. Does he in fact provide a theory of education or, rather, a definition of education? A nominal definition (sometimes also referred to as a reportive definition) refers to or reports the correct use of words. By nominal definitions, we can, for instance, distinguish between elves, dwarfs, and hobbits; the report can be incorrect, of course, but even if correct, the definition tells us something about language use, not about the world outside language. Another type of definition that also tells nothing about the world is a stipulation by an author that a term is going to be used in a particular way (usually as a matter of convenience) irrespective of the way in which that term is

normally used. A (scientific) theory, however, is not like this—in principle, it can be falsified, for it makes a statement about how some aspect of the world *is*. Yet how could you falsify the assertion that education is the sum total of reactions of a society to the fact of child development?

The harsh opposition between definitions and theories, however, can be conciliated. For in addition to scientific theories that can be falsified or verified (e.g., theories of moral cognitive development), there also are theories that, first of all, constitute the formal object of investigation. For example, in the 17th and 18th centuries, "childhood" was discovered as a particular field of study by constitutive theories that established childhood as a specific stage of life with its own developmental regularities. In a similar way, after the identity of state and society was dissolved, modern political theory established the political system as a functionally differentiated subsystem of society in contrast to premodern holistic conceptions of the field. Consequently, these *constitutive* theories are not simply falsified or verified but rather *differentiated* and *refined* by empirical investigations. Seen in this way, Bernfeld's theory of education is neither a nominal nor a stipulative definition, nor a scientific theory, but a constitutive theory. It reveals education as a real-world phenomenon, not by pointing at isolated interventions and events but by conceiving of education as a complex phenomenon whose generic traits are not visible or tangible and, thus, have to be theorized.

From a formal perspective, Gert Biesta (2006, p. 22) has identified three elements of any educational theory: purpose, content, and process. *Purpose* points to the fact that education implies a form of directed development of childhood in society, as opposed to mere evolution. Although the notion of purpose tends to restrict education to intentional education, one cannot do without a broad understanding of education as a directed process, which implies that this element needs to be reflected in an ethics of education. *Content* hints at the fact that any relationship between learning and teaching deals with a second factor, which is subject matter in terms of knowledge, skills, and attitudes. In premodern societies, education was mainly about learning a specific and relatively limited number of items of knowledge and skill that were considered valuable elements of a given tradition. In modern societies, this factor shifted to a meta-level so that learning to learn, or developing the disposition to gain knowledge and skills, became more and more

important. In any case, the content of education also needs to be reflected with reference to normative considerations. *Process*, finally, hints at the fact that education is a specific form of mutual communication over time that takes on a reality of its own. It is not an attempt to make isolated mechanical interventions; rather, it is a process of communicating meaning that is transactional insofar as both those who are involved and the subject matter of their joint attention are changed in the very process of education. Accordingly, the process element of education needs to be reflected in a social theory that captures education as a specific order of interactions.

Although there can be no doubt that purpose, content, and process are constitutive elements of any educational theory, one can ask whether these elements really capture the specifics of education or whether purpose, content, and process are in fact constitutive elements of communicative interaction in general. If we admit that these elements characterize communication of any sort, we still have to flesh out the specifics of *educational* communication. In so doing, we see that two options open up. The first option would claim that there are specific "educational" purposes, contents, and processes. This claim faces severe problems, particularly with regard to purposes and contents. What many consider the ideal ends of education, such as emancipation or autonomy, are not exclusively educational. The same holds true for contents; since there are no contents that are in themselves "educational," the range of possible contents cannot be limited from the outset. Therefore a second option seems to be more promising: The specifics of educational communication are determined not by the elements involved but by the formal structure or grammar that combines these elements in the very process of education. In this approach, the procedural character of education gains center stage. Education is regarded as a specific interaction order that transforms both the purposes and the contents as well as the interacting partners involved in this process. Thus, it becomes clear that education, like any other complex phenomenon, is not adequately described just by listing its elements.

Theory and Practice

Any theory of education is confronted with the question of how it relates to the practice of education. In contrast to theories in the natural sciences, we can find a threefold relationship of theory and practice in education and other social studies. First, the *subject*

matter of the theory is not a natural phenomenon but a practice. Second, a theory may take the form of a "practical theory" that claims to *serve* practice, at least by reflection and analysis. Third, a practical theory may have practice as its *origin* insofar as perplexities within practice may give rise to theorizing the problems at hand. Generally speaking, the latter point is illustrated by the history of educational thought, which shows that an elaborated theory of education is a fairly late undertaking compared with the practice of education, which is as old as mankind. Only when the relationship between the generations was no longer taken for granted and the career of each individual was considered to be a matter of deliberate choice and conduct of life did a need for a theory of education arise.

This understanding of educational theory as a practical theory *of* education and *for* education was the core of the so-called *Geisteswissenschaftliche Pädagogik*, which dominated the German discourse in educational studies into the 1960s. This tradition drew a sharp distinction between sciences and humanities (*Geisteswissenschaften*), and educational studies were considered part of the latter. The notion of a practical theory, however, underestimates the difference between the status of a theory within the practice of scientific investigation and scholarship, on the one hand, and the status of a theory within the practice of education, on the other. In both cases, practitioners may have an implicit "theory" that guides their practice, and in both cases, this "practical theory" may gain some degree of explicitness; a scientific theory, however, claims to have a status different from that of a practical theory. In this vein, William James (1899/1962) has stressed that a practical theory of education is "concrete and ethical," whereas a scientific theory like that of psychology is "abstract and analytic" (pp. 5–6): "Psychology is a science, and teaching is an art; and science never generates arts directly out of themselves. An intermediate inventive mind must make the application, by using its originality" (p. 3). Thus, the divide between a universal and abstract scientific theory and the specific and concrete tasks of educational practice has to be bridged by forms of judgment.

Types of Educational Theory

The critical discussion of the pretensions of a practical theory and the rise of a positivist self-understanding of social sciences has led to a differentiation between different types of theory, particularly between a practical theory and a scientific theory. Following Émile Durkheim (1911/1956), a practical theory is located in a middle ground between a science of education and the art of education. An art is defined as "pure practice without theory," a "system of ways of doing which are oriented to special ends and which are the product either of a traditional experience communicated by education, or of the personal experience of the individual" (p. 101). An art can gain some level of reflectiveness, but for Durkheim, "reflection is not an essential element of it, since it can exist without reflection." Social sciences, like the science of education that was just emerging in Durkheim's time, deal with social facts, including (among others) those pertaining to education. A science "studies these facts to know them, and only to know them, in an absolutely disinterested fashion" (p. 93). Now, a practical theory differs from both an art and a science but takes on an intermediate role:

> Instead of acting on things or on beings in a determinate way, one reflects on the processes of action which are thus employed, not to understand and explain them, but to appreciate what they are worth, if they are what they should be, if it is not useful to modify them, and in what way, and even more, to replace them completely with new procedures. These reflections take the form of theories, they are combinations of ideas, not combinations of acts, and in this they become closer to science. But the ideas which are so combined have, as their object, not to express the nature of things as given, but to direct action. They are not actions, but are closely related to actions which is their function to orient. If they are not actions they are at least programs for action, and in this respect they are like art. (pp. 101–102)

To differentiate between a practical theory in this respect and a science, Durkheim introduces the important difference between pedagogy and the science of education. Pedagogy as defined by Durkheim includes the work of theorists such as Jean-Jacques Rousseau and Johann Heinrich Pestalozzi, as well as most of the literature of progressive education. The object of such practical theories "is not to describe or explain what is or what has been, but to determine what should be" (Durkheim, 1911/1956, p. 99). Interestingly enough, even in the tradition of analytic philosophy, educational theory is ascribed the function of determining and guiding education: "The function

of the theory is to determine precisely what shall and what shall not be done" (Hirst, 1966, p. 40).

Functions of Educational Theory

The discussion of the notion of a practical theory and Durkheim's distinction between types of theories already entailed that a theory may take on different functions. In the natural sciences, theories have a rather narrow but straightforward function; namely, the *explanation* and *prediction* of empirical facts. The Baconean understanding of theory elevates the method of inductive reasoning over that of Aristotelian logic and regards theory as the explanation and prediction of empirical facts; this view still resonates in contemporary social sciences, where, for example, the lure of evidence-based education has gained a tremendous attractiveness among researchers and politicians. Judged by the ideal of a scientific theory in the sense of a hypothesis or a logically interconnected set of hypotheses that have been confirmed by observation, the analytic philosopher D. J. O'Connor (1957) noticed that educational theory comes off rather badly. His conclusion was that in educational contexts, the word *theory* can be only a "courtesy title": "It is justified only where we are applying well established experimental findings in psychology or sociology to the practice of education" (p. 110). On the basis of O'Connor's ideal of a scientific theory, education can be regarded only as an applied field for theories of other disciplines, not as a scientific discipline that draws on its own resources for theorizing education.

Although the educational theorist Paul Heywood Hirst (1966) agreed with O'Connor that education is a "field subject" (Tibble, 1971, p. 16)—a field of practical affairs like engineering or politics that is dependent on theories from foundational disciplines—he disagreed about the function of a theory in educational contexts. Theories of science and theories of practical activities, he claimed, "are radically different in character because they perform quite different functions, they are constructed to do different jobs" (Hirst, 1966, p. 40). The former consists of judgments about what is the case, while the latter consists of judgments about what ought to be the case. For Hirst, the validity of the principles of a rational educational practice must be judged according to the criteria of the relevant foundational disciplines. Thus, for Hirst (1966), educational theory can rightly take the form of a practical theory that is aimed at constituting a rational educational practice.

This practical theory, however, must be based on scientific theories provided by foundational disciplines (particularly psychology, sociology, philosophy, and history). The validity of the practical educational theory, then, can only be judged according to the scientific criteria of the foundational disciplines.

> The psychological reasons must be shown to stand according to the strictest canons of the science. Equally the historical, philosophical or other truths that are appealed to must be judged according to the criteria of the relevant discipline in each case. (p. 51)

Beyond the reasons and standards of foundational disciplines, educational theory has "nothing *educational*" (Hirst, 1966, p. 51) to appeal to.

Are there any options for theorizing education that are missed between O'Connor's positivist conception of a scientific theory and Hirst's normative conception of a practical theory? With regard to the ideal of a scientific theory, the anthropologist Siegfried Ferdinand Nadel (1957) has pointed out that "only the most advanced sciences have reached this level of explanatory theory-building" (p. 1). It cannot be precluded that in the field of education there might be scientific theories in the more ambitious sense, but even where explanation and prediction of facts seem to be attainable (e.g., in class-size research), the results are mixed, and a theory in a strict sense is not within reach. According to Nadel, however,

> *theory* can also be understood in another, less ambitious, sense, namely as a body of propositions . . . which serve to map out the problem area and prepare the ground for its empirical investigation by appropriate methods. . . . *Theory* here equals conceptual scheme or logical framework. (p. 1)

These theories are neither scientific theories nor practical theories. Instead, they could be considered constitutive theories that try to map out the problem area in question. Accordingly, a theory of education tries to define the domain of education, not as a marked-off realm of the social world—a "material object" that can be regarded as a given social fact—but as a "formal object" of a science of education that has to be constituted conceptually. The need for theorizing education in this way is apparent, since, as a material object, education is interwoven in different social processes and interactions between newcomers and grownups so

that it can be identified only theoretically or, to be more precise, identified by a constitutive theory.

The function of educational theory as a conceptual scheme differs both from the function of a practical theory and from the function of a scientific theory in a narrow positivist sense. In contrast to the latter, it does not assume that education can be regarded as a given social fact that can be explained and predicted by educational theory. In contrast to the former, a theory understood as a conceptual scheme does not pretend to direct and guide the practice of education. Mapping out the problem area is not directed at the practice of education but at the science of education, since it prepares the ground for the identification of educational problems and their empirical investigation by appropriate methods.

Nevertheless, indirectly, this type of educational theory may have a practical function as well. Not by directing and guiding education in a straightforward way but by (re)conceptualizing education, theory may identify educational problems where practitioners, politicians, and the public have seen none. Thus, theory may contribute to a different way of thinking regarding the tasks and methods of education, which is why educational theory is important not only for the practice of science itself. Because educational theory thus involves communication with practitioners, politicians, and the wider public, a "double hermeneutic" (Giddens, 1987, p. 20) takes hold, which implies that an educational theory does not capture an independently constituted social reality that continues regardless of what this theory is. Like any social theory, educational theory enters constitutively into the world it describes.

Educational Theory and Philosophy of Education

Is the above-mentioned function of a constitutive theory of education adequately captured in philosophy of education? In other words, is there a need for theorizing education independent of philosophy? The question of how theory of education relates to philosophy of education is usually not particularly prominent in the literature. Tacitly, one seems to assume that philosophy of education implies theory of education. In this vein, a handbook article on "What Is Philosophy of Education?" (Phillips, 2010, p. 4) states that "the discussion must start with the nature of philosophy itself—for it should be obvious that individuals holding different conceptions of what constitutes philosophy will give quite different

accounts of philosophy of education." Especially in the English-speaking tradition, this is the common approach in philosophy of education; it starts with a detailed analysis of the question as to what the nature of philosophy might be and—in light of answers to that question—addresses the question as to what the nature of philosophy *of education* might be. Often the latter question is not treated in as detailed a manner as the former. Rather, having answered the former question, it is assumed that one has simultaneously sketched an answer to the latter question as well. This assumption is underpinned by the suggestion "that as a field philosophy of education is on par in complexity not with any one branch of philosophy, but with the *whole field* of philosophy" (Phillips, 2010, p. 17). Thus, in its scope and dimensions, philosophy of education is considered to be as broad and complex as philosophy itself. The widely felt infinity and indeterminacy of philosophy of education are finally explained by hinting at the infinity and indeterminacy of the "field" or the "domain" of education itself: "The field of education is so broad and complex, and is intertwined with so many other aspects of society, and is of such fundamental social importance, that the direction philosophical work can take is almost limitless" (Phillips, 2010, p. 17). In consequence, the dictionary-type definition of philosophy of education—"Philosophy of education is a field where philosophical inquiry is pursued that focuses upon issues arising within the domain of education" (Phillips, 2010, p. 18)—does not really have a defining character. It marks off neither a particular field of philosophical inquiry nor the domain of education itself. The dictionary-type definition, however, makes sense only insofar as it relies on the fact that everyone has an implicit understanding of what the domain of education constitutes. What is still lacking, however, is an explicit theory of education—in other words, an attempt to conceptualize education not as an empirical object but as an object of inquiry. For elucidating education, it is insufficient to hint at empirical objects such as schools, since many different processes are going on there simultaneously. How can we know that education is going on at a particular school? (Biesta, 2011, p. 190). Thus, if philosophy of education refers to the "domain" of education, this domain itself has to be conceptualized. In other words, philosophy of education cannot do without a theory of education, and the latter cannot simply be derived from the former.

Theorizing education as a task of its own, independent of philosophy but not ignorant of

philosophy and its methods, has not been prioritized for various reasons. One reason is the long-dominant so-called isms approach in philosophy of education that started from established philosophical positions from which "implications for education" were derived (Burbules, 2000, p. 10). Another reason why the task of theorizing education has not been at the top of the agenda is the fact that, at least in the English-speaking tradition, education is usually considered to be a "field subject," not a scientific discipline of its own. To be sure, the question whether education should be regarded as a field subject or as a discipline of its own cannot be resolved easily, and there are good reasons for both sides (Scheffler, 1966). These positions, however, have different implications for theorizing education: Regarding education as a field subject implies that the crucial theoretical work is done in the so-called foundational disciplines (philosophy, history, psychology, sociology), while distinctively educational sources for theorizing education are left unnoticed (Biesta, 2011). The result is that in the English-speaking tradition, there are usually numerous theories in education but a limited attention to a theory of education. In a recent expansive *Handbook of Educational Theories* (Irby, Brown, Lara-Aiecio, & Jackson, 2013), there are 100 chapters on theories coming from diverse disciplinary contexts——from behavioral learning theory to constructivist curriculum theory and organizational theory—but only one entry (by Gert Biesta) that explicitly addresses the distinctive task of a theory of education.

The Continental tradition, especially the German tradition, of constructing the field is different. Here, from around 1800 on, we find attempts to theorize education as an autonomous academic discipline, not separate from psychology and philosophy, especially ethics, but concentrating on its own "indigenous concepts"—first of all *Bildsamkeit* (formability), and the practice of education—as being the major source for a theory of education (Herbart, 1806/1989).

The broader context for the development of education as a discipline of its own is the fact that modern societies are functionally differentiated. Just as any other functional sphere, education too follows its own logic and can no longer be considered part and parcel of a premodern, all-encompassing concept of politics or ethics. That is why it was felt that a theory of education cannot simply be derived from political theory or ethics (Schleiermacher, 1826/1983). Rather, it must focus on the logic of education as a differentiated, autonomous, and universal functional sphere in modern society. Consequently, under modern conditions, one has to distinguish between a domain-specific and a domain-unspecific theory of education. The former is contextualized in a functionally differentiated society, while the latter is decontextualized and holistic, treating education as an anthropological constant.

Now, the crucial question is which type of educational theory is presupposed or developed in philosophy of education. By its very nature, philosophical inquiry tends to be domain unspecific. It is characterized by its methods but not by a specific subject matter. Although there is philosophy of science, political philosophy, philosophy of education, and so forth, philosophical inquiry always deals with meta-level questions and the types of philosophical activity—either metaphysical/speculative, normative, or analytical (see Phillips, 2010)—across the different functional spheres. That is one reason why philosophy of education usually tends to presuppose or develop domain-unspecific theories of education. Another reason can be found in the aftermath of the ancient self-understanding of philosophy as "love of wisdom" that was in fact a far-reaching educational project rather than an intellectual activity of experts. In this vein, John Dewey (1916/1985) defended a holistic understanding both of philosophy and education as being not merely intellectual endeavors but as dealing with "fundamental dispositions toward nature and fellow-men," so that he finally could define philosophy "as the general theory of education" (p. 338). No wonder that this understanding of philosophy of education has trouble dealing with education as a specific domain, in which not all predicaments of the human condition are at stake at the same time; that is, it has trouble defining the limits of education, focusing on the specific problems to which education is supposed to be the answer. Thus, the limitless nature of philosophy of education is due to a presupposed domain-unspecific theory of education, and by drawing attention to the capacity of a constitutive theory of education, it was shown that this is by no means self-evident or without any alternative.

Johannes Bellmann

See also Continental/Analytic Divide in Philosophy of Education; Dewey, John; Education, Concept of; Educational Science; Herbart, Johann F.; Peters, R. S.; Phronesis (Practical Reason); Reflective Practice: Donald Schön; Scheffler, Israel

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EMBODIMENT

The idea that the body is inextricably involved in learning has a long history. "I hear and I forget; I see and I remember; I do and I understand" has been attributed to Confucius. In his famous *Democracy and Education*, John Dewey (1958) held that "the material of thinking is not thoughts, but actions" (p. 184) (a view that reflected the influence of his fellow pragmatist William James), and Maria Montessori made much the same point when she emphasized that the hand allows the mind to "reveal" itself; Maurice Merleau-Ponty's phenomenology made much of the fact that the self is embodied (discussed elsewhere in this encyclopedia). Ideas from this pedigreed tradition have influenced both contemporary learning theory and educational practice.

In current education circles, the expression *embodied learning* has been used interchangeably with action learning, kinesthetic learning, and embodied education. In this entry, it will be understood as referring to learning that is augmented by the learner's physical movement. The strongest embodied learning occurs when these movements are congruent with key concepts in the topic that is being learned, and so the actions must be consciously designed into an educational lesson. (Congruent actions are ones that map with, or ground the content to, our sensorimotor systems. For example, spinning a yo-yo over one's head can help ground the sensation of centripetal force; tapping an icon on a touch screen to start a simulation of a yo-yo would not be a case of highly embodied learning.)

Humans are designed to process or encode information through various input channels—in the formal school day, the most common of these are visual (reading) and auditory (e.g., listening to a lecture). Although we usually are adroit at processing via these two modes, there is a movement to include more embodied learning in the classroom. Below,

various theories supporting embodied learning are listed, and the discussion will end with new technologies that can aid in presenting and exploring content via gesture or gross body movements.

Using the Body to Learn

As the pragmatist philosophers and others over the ages have stressed, our bodies are designed for action. More recently, researchers have argued that perception is not just for the static encoding of environmental features into the perceiver's mind, but rather the environment itself affords (makes possible) certain actions; and because we move, those affordances are constantly in flux. In short, human cognition is deeply rooted in the body's interactions with the physical environment (Wilson, 2002), and multiple research domains now support the tenet that embodiment is a powerful underpinning of cognition. The various domains include (but are not limited to) the following: neuroscience and mirror neurons (Rizzolati & Craighero, 2004), cognitive psychology (Glenberg, 2010), social psychology (Niedenthal, Barsalou, Winkielman, Krauth-Gruber, & Ric, 2005), linguistics (Lakoff & Johnson, 1980), mathematics (Lakoff & Núñez, 2000), gesture (Goldin-Meadow, 2003, 2009), and performing arts, such as theater and dance (Noice & Noice, 2006; Winters, 2008).

An intriguing demonstration of how cognition is intertwined with the actions of the body is found in a study where participants listened to words related to various body areas ("lick," "pick," and "kick"), and brain activation was observed in the sensorimotor areas associated with performing those actions. For example, hearing "lick" activated motor and premotor areas associated with the face and tongue, "pick" with the arm, and "kick" with the leg area. The suggestion is that we draw on our experience in the physical world not only when thinking literally about bodily actions but also when engaging in higher-order thought processes and semantics. The meanings of these words are still associated with the motor and premotor cortical areas used to perform them—even in the adult brain. This implies that if we were able to instruct people using body movements and activating appropriate sensorimotor codes while learning, then students might learn better. One mechanism to explain this may be that cognitive resources are freed by the use of the motor system, or perhaps moving the body helps strengthen the memory trace as another modality has been added during encoding.

An earlier spate of studies demonstrated a direct effect of physical enactment on cognitive processes. In the self-performed tasks domain, researchers compared participants who heard a list of unrelated action phrases with participants who performed those actions. The consistent finding was that the self-performing participants recalled more of the phrases than those who merely heard the phrases. This is sometimes called being "generative." There is increasing evidence that body movement such as gesture can serve as a "cross-modal prime" to facilitate the retrieval of mental or lexical items. If physical movement primes mental constructs such as language, then it may be that increasing an individual's repertoire of conceptually grounded physical movement will provide fertile areas from which new knowledge structures can be developed. *These gestures, however, need to be congruent.*

After a certain grade in school, the majority of the educational content in Western education is conducted using abstract symbols, namely, the symbols of language (words and syntax) and the symbols of mathematics. For these symbols to be meaningful, they must be based in something outside of the system of symbols themselves. Body perception and action, and the experiences based on perception and action, may become internalized in what has been termed *perceptual symbols*. When the appropriate sensorimotor systems are engaged, the converging inputs of perceptual symbols might work together to create stronger and more stable knowledge representations. However, it is important that the actions be congruent with the content to be learned. Performing jumping jacks in front of an interactive whiteboard will not increase knowledge about centripetal force; the perceptions and actions must be structurally or analogically related to the symbols and their meaning for effective learning to take place—what has been referred as *gestural congruency* (Segal, 2011). Thus, lengthening the string on the yo-yo must mentally map to the symbol r for radius in the equation for centripetal force. The embodied sensation that follows reinforces the concept that it is easier to spin at the same speed when the string is longer (i.e., force is decreased when r is increased).

What Role Does Technology Play?

Manipulables are concrete objects that can be used to activate real-world knowledge; but with the advent of new media and ubiquitous computers, it has become easier to virtualize them. There is no

clear answer yet as to whether using real or virtual manipulables is more effective.

However, it is possible to build on a purely embodied sensation by adding virtual components—instructional designers are now able to merge the physical with the virtual. By mapping a virtual or digital velocity vector onto the spinning yo-yo in real time (e.g., on a whiteboard behind the student), it is possible for a student to learn with both physical and virtual systems in place. This type of interactivity, the meshing of the physical and the virtual, is called *mixed reality* (MR). Paul Milgram and Fumio Kishino (1994) use the term to describe the space in between entirely virtual environments and entirely real-world environments. In the current technology landscape, this is a very broad definition that is inclusive of a wide range of applications from digital overlays on camera views, to physical objects such as simple machines interfacing with digital displays, to enhancing virtual reality interactions with haptic feedback.

Here is an example of how MR is being used in education today. Although this example uses a large-scale immersive platform, MR does not have to be big—the use of Microsoft's single KINECT sensor is bringing motion capture into informal and formal learning spaces. In addition, tablets and small form handhelds with accelerometers lend themselves to embodied designs. One large MR environment is called the Situated Multimedia Arts Learning Lab. It is a 15 × 15 foot space with interactive floor projection. It tracks a handheld wand using 12 infrared motion capture cameras. The physical body is now able to function like a 3D cursor in the immersive space. Several randomized controlled studies have demonstrated significant gains when content learned from Situated Multimedia Arts Learning Lab is compared with learning in a regular classroom. Researchers do not believe that it is the large environment that drives the learning; rather, it is the amount of embodiment designed into the lesson (Johnson-Glenberg, Birchfield, Tolentino, & Koziupa, 2013).

Taxonomy for Embodied Learning

The study of embodied learning is rapidly advancing, and the term itself is in danger of becoming blurry with overuse. It may be time to codify it with a taxonomy that applies to education. Mina Johnson-Glenberg and colleagues propose three necessary components for a range of embodied learning: (a) amount of motoric engagement; (b) gestural congruency—that is, how well mapped the evoked gesture is to the content to be learned; and (c) perception of immersion.

Mina C. Johnson-Glenberg

See also Confucius; Dewey, John; Distributed Cognition; James, William; Montessori Education; Phenomenology; Spectator Theory of Knowledge

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EMERSON, RALPH WALDO

Ralph Waldo Emerson (1803–1882) was an American essayist and poet. Born in Boston, Massachusetts, Emerson was the fourth child of a Unitarian minister. He graduated from Harvard Divinity School and served as junior pastor in Boston's Second Church. After the death of his first wife, Emerson began to question his theological commitments. He resigned from his pastoral position in 1832, writing in his journal, "I have sometimes thought that, in order to be a good minister, it was necessary to leave the ministry." Emerson began a new career as a speaker on the Lyceum circuit, where traveling lectures and debates were presented before eager American audiences. Many of Emerson's famous essays grew out of these popular lectures. Emerson's early book, *Nature* (1836/1982b), served as the intellectual foundation for American Transcendentalism, a movement aimed at helping individuals develop an authentic existence in the human and natural worlds. His 1837 address to the Phi Beta Kappa Society, "The American Scholar" (1837/1982a), cemented his literary reputation and remains the most compelling statement of his educational vision. Emerson's two books of essays, the first published in 1841 and the second in 1844, span a wide variety of topics, from history and poetry to friendship and manners. His later essay "Education," which he presented at various graduation ceremonies and which was eventually published in *Lectures and Biographical Sketches* (1884), is his most explicit treatment of formal education.

Throughout his writings, Emerson is keenly concerned with the growth of the individual—the development of the individual's powers, potentials, and capacities—an emphasis demonstrating that his thought is thoroughly centered on educational concerns. Indeed, Emerson's treatment of individuality and moral perfectionism as it relates to education constitutes his greatest contribution to educational thought. "A man," he writes in his essay "Self-Reliance," "should learn to detect and watch that gleam of light which flashes across his mind from within, more than the luster of the firmament of bards and sages" (Emerson, 1841/1982c, p. 176). Education should encourage people to recognize and treasure this "gleam of light," to trust their own thoughts and impressions, and to develop their own genius. Foreshadowing later critical theorists,

Emerson worried that educational efforts often simply reproduced existing power relationships and social structures. Rather than social reproduction, Emerson argued that education should instead help students to act autonomously, to develop a tapestry of powers, to avoid the life of mindless conformism, and to become creators instead of receivers. Thus, Emerson (1884) writes,

> The great object of Education should be . . . to teach self-trust; to inspire the youthful man with an interest in himself; with a curiosity touching his own nature; to acquaint him with the resources of his mind, and to teach him that there is all his strength. (p. 110)

How does one educate for individuality and self-trust? Emerson suggests that the key is to help people to have an expansive range of experiences. In his essay "The American Scholar," Emerson describes three important realms of experience that influence and shape the mind: *nature*, *books*, and *action*.

Emerson defines nature broadly, to include not only the nonhuman, natural world but also the day-to-day human world as well. Our engagement with nature, he argues, can become an avenue of self-knowledge. Emerson was intrigued by Immanuel Kant's "turn to the subject," where human beings are thought to experience nature indirectly through categories of understanding imposed by the human mind. As we study and classify nature, Emerson reasoned, we experience our own mental categories at work in the universe. It is this connection between mind and nature that grounds Emerson's Romantic spirituality. Beyond the opportunity for self-knowledge, the experience of nature is also educative because of the solitude it provides, allowing individuals respite from the demands of social conformity. Nature enriches not only our language but also our intellectual and moral understanding through the metaphors it suggests. "Who can guess," writes Emerson (1836/1982b), "how much firmness the sea-beaten rock has taught the fisherman?" (p. 59). Finally, the experience of nature educates because of how it demands the full exercise of the human senses, thus facilitating the development of individual powers.

In his discussion of books, Emerson deals with how we learn from the experiences and thoughts of others. Emerson, as a man of letters himself, valued the contribution of books and culture but thought

that they were much too heavily emphasized in schools. An overreliance on books destroys individual creativity, teaching students that thoughts come from the outside rather than from within. We should not rely on books as a source for our thoughts; rather, we should use them for inspiration. Through books we realize that we, too, can become great thinkers.

The final realm of experience, for Emerson, is action. Work, labor, and suffering—these are keys to developing the human powers of language and thought. In his 1844 speech, "New England Reformers," Emerson complained that too often when school is over, "We . . . come out at last with a bag of wind, a memory of words, and do not know a thing. We cannot use our hands, or our legs, or our eyes, or our arms" (Emerson, 1899, pp. 244–245). Real education occurs through experiential learning: "The sight of the planet through a telescope," he continues, "is worth all the courses on astronomy" (Emerson, 1899, p. 245). Action is most educative, for Emerson, when it stems from individual human purposes, both to teach and to learn. When we are interested in learning and teaching, education becomes "natural." This means that student freedom becomes essential for learning to take place: "The secret of Education lies in respecting the pupil. It is not for you to choose what he shall know, what he shall do" (Emerson, 1884, p. 116). Emerson also emphasized the educational worth of experience that comes about through acting in everyday life. He regretted the fact that only the distant and exotic seem to be valued in education: "I ask not for the great, the remote, the romantic. . . . I embrace the common, I explore and sit at the feet of the familiar, the low" (Emerson, 1837/1982a, p. 102).

In his democratic embrace of the educational potential of ordinary life, experiential learning, and child-centered experiences, Emerson foreshadows John Dewey and strands of American progressive education. More recently, his celebration of the educational potential of nature intersects with the environmental education movement. His emphasis on the development of autonomy has been an important influence on liberal educational thought, while his emphasis on the growth of individual power and self-trust was of keen interest to Friedrich Nietzsche. Indeed, Emerson presents a vision of what education would look like if it took individuality seriously, a vision he recognized as antithetical to schooling as it was (and is) practiced: "Our modes of Education aim to expedite, to save labor; to do for masses what cannot be done for masses, what must be done reverently, one by one . . ." (Emerson, 1884, p. 123).

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See also Cavell, Stanley; Dewey, John; Experiential Learning; Kant, Immanuel; Liberalism; Nietzsche, Friedrich; Progressive Education and Its Critics

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EPISTEMOLOGIES, TEACHER AND STUDENT

"Personal epistemology" refers to the beliefs that people hold about knowledge and knowing; the psychological study on this topic started with the seminal work of William Perry in 1970. It seemed plausible that the ideas students have about the nature of knowledge and how one comes to know something influence the learning strategies that they

use, while the epistemologies of teachers seemed likely to influence how they teach.

Personal epistemology researchers concentrate on two broad dimensions of epistemology: (1) the nature of knowledge and (2) the nature of knowing. The nature of knowledge is conceptualized in terms of beliefs about its simplicity (simple vs. complex) and about its credibility status (certain vs. tentative). The nature of knowing is conceptualized in terms of the source of knowledge (internal or external to the knower) and the means of justification (authority vs. evidentiary standards). Personal epistemology researchers generally argue that a developmental progression exists across the life span, wherein individuals start from an absolutist stance that sees knowledge as simple, knowable with certainty, as having its source in the world, and justified by trusted authorities; later they move to holding an unmoored multiplism (or relativism) in which knowledge is regarded as uncertain, supposedly authoritative sources are untrustworthy, and all knowledge claims are equally justifiable. Later in development, this multiplism is resolved into an evaluative stance that concedes that knowledge is constructed and is not knowable with absolute certainty, but that nevertheless asserts that knowledge claims can be justified according to standards of reason and evidence.

Research has shown that there is some degree of association between epistemological beliefs and learning strategies, school achievement, and course-taking patterns. There is a tendency for students who have adopted the evaluative stance to have higher achievement, to take more math and science courses, and to use deeper learning strategies. At the same time, however, it must be acknowledged that clear and direct associations between professed epistemic beliefs and students' learning in subjects such as science or math have been hard to come by, and studies have faced a range of problems of measurement and conceptualization.

Research on teacher epistemologies has largely focused on associations between epistemological beliefs and other kinds of beliefs about teaching or learning. Compared with studies of student epistemologies, research on teachers is limited. Within math and science specifically, the general finding is that the teachers across K–12 grade levels tend to have what researchers consider naive views of the epistemology of their subject specialties. As yet, relatively little work has been done to trace the influence of these views on teaching practices. There is

some empirical suggestion that myriad concerns and in-the-moment judgments have a much stronger effect on instructional practices than epistemological beliefs.

Research on personal epistemologies has been hampered by a rather large variety of definitions of what counts as "epistemological." Models of epistemological development proliferate, so far with little effort to discriminate among them. Connections between relevant developmental milestones, such as attainment of the ability to engage in causal reasoning, or development of the child's theory of mind, are underexplored. Questions remain concerning how an individual's beliefs about knowledge and knowing are related to the individual's beliefs about learning, and whether the latter should be considered part of a personal epistemology.

A persistent concern in personal epistemology research has been the reliance on general survey instruments that lack validation with other possible assessments of epistemological belief. Research subjects are typically asked to state their level of agreement with general statements about knowledge or about knowing—but such assessments are far removed from people's actual efforts to construct or evaluate knowledge for themselves and presuppose that individual's epistemic beliefs are stable and available for explicit reflection. A related problem is that commonly used instruments often include items about topics that bear little relation to epistemology.

There is another significant issue, namely, that a wide variety of empirical evidence undermines claims that there is a simple developmental trajectory from absolutism to evaluativism. People can espouse apparently contradictory epistemologies at the same time, both within and across subject matter or judgment domains. The assignment of individuals to broad epistemological positions may reflect researchers' biases more than the actual beliefs of the people concerned. This has spawned a variety of theoretical models of epistemological development; these include developmental theories as described here and models that posit multidimensional, somewhat independent belief systems. At the moment, the field appears to be in ferment without a clear way of discriminating between competing models.

A related issue is that the dominant conceptualization of epistemological beliefs as described above seems simplistic both intuitively and philosophically. Intuitively, it is not hard to recognize that some knowledge is simple, such as knowing

your own phone number, but other knowledge is complex, such as knowing the theory of natural selection. The epistemological status of the first is different from that of the second—and this makes it difficult for students to give a single, universally applicable account of the nature of their beliefs. Philosophically, epistemologists concern themselves with a much broader range of issues than is typical in personal epistemology research, and in particular emphasize the aims of knowing, and the role played by values in epistemological matters.

Models of epistemological development thus are making efforts to be more philosophically rigorous, and investigative methods are changing to enable comparisons between what researchers now distinguish as professed epistemologies (what people say that they believe about knowledge and knowing) and enacted epistemologies (what people do when they construct and evaluate knowledge themselves). This includes a shift away from assessments of beliefs toward the study of processes of epistemic cognition. This shift stems in part from research on learning in the disciplines, especially math and science. In science, for example, the evidence is quite clear that students' efforts to investigate scientific questions (enacted epistemologies) share much with professional scientific practice, while their professed epistemological beliefs about science seem hopelessly naive and immune to instruction. It remains an open question how the intuitive and apparently tacit ideas students apply to their own knowledge construction can be developed into explicit conceptions of the epistemologies of particular disciplines of science, mathematics, and others.

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See also Epistemology, Multicultural; Knowledge, Analysis of; Learning, Theories of; Metacognition; Piaget, Jean; Postpositivism; Theory of Mind

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EPISTEMOLOGY, MULTICULTURAL

In educational practice and research, the term *epistemology* has come to refer to a wide range of questions and theories about knowledge that have traditionally come under the purview of philosophy of knowledge, and more broadly under sociology and anthropology of knowledge, and psychology. These questions include what knowledge is, who can claim to have it, the differences (if any) between knowledge and belief (or between knowing and believing), what count as sources of knowledge, and how knowledge is acquired or developed. The term *multicultural epistemology*, which is not used very frequently, is open to multiple interpretations that depend on the underlying conceptions of both "epistemology" and "multiculturalism" that are held. This entry begins by addressing the difference between multicultural societies as phenomenon and multiculturalism as policy or attitude. It then addresses three possible interpretations of "epistemology," and how they have manifested themselves in uses of the term *multicultural epistemology*. For each of these interpretations, it discusses the bearing that "multicultural epistemology" has on education.

Multiculturalism and Cultural Diversity

The adjective "multicultural" is ambiguous because it can refer to multicultural*ity*, that is, the neutral fact that most contemporary societies are made up of numerous cultural groups, as well as to multicultural*ism*, that is, the positive view that the different cultures in a given society ought to be respected, accommodated, or celebrated. Multiculturalism can be a view held by an individual or a group of people and can become enshrined in official government policy. "Multicultural epistemologies" in the plural can descriptively (i.e., sociologically, anthropologically) refer to the different ideas about knowledge that can be found in the different cultural groups in a society. "Multicultural epistemology" in the singular tends to refer to the pursuit of epistemological

issues within the traditional field of philosophy of knowledge—but a pursuit that actively seeks to be inclusive and respectful of the different cultural groups in a society and is, therefore, multiculturalist in its orientation.

Three Interpretations of Multicultural Epistemology

Epistemology With a Multiculturalist Sensibility

If epistemology is seen as a philosophical practice, as the part of the larger discipline of philosophy that occupies itself with the study of knowledge and how claims to know something are warranted or supported, then "multicultural epistemology" may refer to this epistemology done with a "multicultural sensibility." This is the interpretation that D. C. Phillips and Jon Levisohn advocate, and in doing so, they borrow the idea of doing philosophy with a particular sensibility from the feminist epistemologist Helen Longino. Longino had distinguished between doing "feminist epistemology" and doing epistemology with a "feminist sensibility." The former would refer to a distinctively feminist philosophical practice, using its own feminist criteria for what constitutes good epistemology, while the latter would refer to the common philosophical practice of epistemology carried out with a feminist awareness of how the traditional understandings of knowledge, knowing, and knowers have excluded women. Similarly, then, doing epistemology with a multicultural sensibility would mean the common philosophical practice of epistemology carried out with a multiculturalist awareness of how the traditional understandings of knowledge, knowing, and knowers have excluded those from non-European backgrounds.

Multicultural epistemology, in this interpretation, could, for example, ask critical questions about the importance of "knowledge by acquaintance," the type of knowledge captured in statements like "I know you" or "they know the river." Such statements are different from and broader than ones such as "I know that you prefer your coffee with milk" or "they know that the river is twenty feet deep," which express "propositional knowledge." Knowledge by acquaintance is a more intimate, encompassing knowledge that is gathered over time, sometimes shared in a community rather than held in an individual mind, and not necessarily written down. Although some philosophers have been dismissive of knowledge by acquaintance as a distinct type of knowledge, it can be highly valued in a community.

For example, educational researchers can measure Chinese immigrant children's competency in English as well as in Mandarin, and they can assess how losing their ability to speak Mandarin affects the children's learning of English. Such research findings are typically captured in propositional knowledge. However, the lived experience of maintaining or losing the language that one's grandparents speak is not so easily captured in propositional knowledge. A Chinese community might say, then,

> We know how a younger generation's inability to speak Mandarin affects intergenerational ties, we have seen how thinking in English rather than Mandarin has changed their outlook on the world: we *know* language loss. Why are policy makers more interested in the propositional knowledge in tables and graphs than in our community's knowledge of language loss when they write new policy on language education?

Multicultural Epistemologies

Others have used the term *epistemology* not to refer to a philosophical practice but rather to a particular set of beliefs about knowledge that are the outcomes of this practice. In this way, scholars may refer to "an epistemology," to "so-and-so's epistemology," or to "epistemologies" in the plural. If epistemology is taken in this way, then "multicultural epistemologies" could refer to the multiple sets of beliefs about knowledge coexisting in a multicultural society. If the primary multiculturalist principle is that the different cultural groups in a society are entitled to their own values, beliefs, and practices, then "multicultural epistemologies" could refer to the idea that the different cultural groups in a society have, and are entitled to, their own ideas about knowledge.

The difficulty with this idea, in the simple way it has been stated here, is that each cultural group's claims to know can be assessed only by that group's own criteria. Each cultural group's claims to know, and the warranting or justificatory criteria that are used, are thus insulated from outside criticism, a situation known as relativism. So if a group, for example, claimed that, in its culture, it was believed that knowledge resided in microchips implanted in people when they were abducted by aliens, a multiculturalist would have to shrug her or his shoulders and say, that is their knowledge, generated by their epistemology, and I have to respect that. From the

perspective of liberal education this is not very satisfactory, as the ability to assess the reasons people give for their claims is considered an important educational outcome. While other educational perspectives might value inclusiveness, respect for difference, and care for one another over the rational ability to assess the reasons given for claims, most would not want to fully embrace relativism and abandon all criteria for assessing knowledge claims.

There is, then, an important tension between "epistemology with a multicultural sensibility" as described earlier and the "respect for multicultural epistemologies" that has just been discussed: the former is *normative*, which is to say, it offers views on what ought to count as knowledge, and the latter is *descriptive*, which is to say, it observes what beliefs about knowledge exist within the cultural groups in a society but does not allow for a cross-cultural assessment of these beliefs.

Epistemology of Multicultural Education

A third interpretation of "multicultural epistemology" is as the epistemology (in the sense of a set of beliefs about knowledge) that is assumed by those who practice multicultural education. In other words, what do those who practice multicultural education assume knowledge to be, particularly knowledge about a multicultural society itself? This is the interpretation that Nancy Lesko and Leslie Rebecca Bloom use when they argue that, ironically, multicultural education often relies on a positivist epistemology. By this, they mean that education with a culturally diverse group of students and about multicultural society often relies heavily on factual, propositional knowledge about multicultural society rather than on other forms of knowledge that may be brought to the class by the students themselves. Lesko and Bloom write that they have observed many attempts to replace students' false beliefs about multiculturalism and multicultural societies with beliefs that are true (as judged by their correspondence to multicultural society as it can be observed and measured). Such attempts, they believe, disrespect the cultural diversity of the students as they validate only one type of knowledge about multicultural society and force it on students who bring to school their own knowledge of such a society. Lesko and Bloom argue that the students' subjective experience, and knowledge by acquaintance of living in a multicultural society, ought to be taken seriously as a type of knowledge and that

a dialogical approach to knowledge co-construction is more appropriate than a focus on accurate knowledge about multicultural society based on objective evidence.

If knowledge co-construction in a multicultural classroom proceeds without any shared criteria for what counts as knowledge, it falls prey to the relativism mentioned above. However, this does not diminish the important question of what epistemology, in the sense of philosophical practice or in the sense of set of beliefs about knowledge, is best suited to support multicultural education. How might we best go about teaching students about various theories of knowledge if at the same time we wish to promote respect for cultural difference? How can we teach students to assess the warrants for knowledge claims, but also to be mindful of the contexts in which they do so, and the voices that are or are not heard as legitimate makers of knowledge claims? There is no one-size-fits-all approach with which we can assess the warrants for statements made by, for example, candidates in a presidential election campaign as well as those made by Indigenous people in land claims.

Epistemology as Ill-Fitting Box?

One of the difficulties not addressed by the label "multicultural epistemology" is that it continues the use of the term *epistemology*. While the introduction of the word "epistemology" into English is relatively recent, dating back no further than the middle of the 19th century, discussions we would now call "epistemological" go back much further in Western and Middle-Eastern philosophy. The tendency to seek precision through analysis and taxonomy has led to distinct names for disciplines and subdisciplines and fields and subfields, including, for example, "epistemology," "ontology," and "ethics" in philosophy. While such distinct subdisciplines and fields allow for sought-after specialization and precision, they can also treat phenomena and concepts that are inseparable in their real-life manifestations as being distinct or separable. The philosophical practice of epistemology can be perceived as an ill-fitting box by those from cultural backgrounds in which analysis and taxonomy are less valued. Epistemology has traditionally presupposed that the study of knowledge can be conducted separately from, for example, ethics or sociology, but the question of what counts as a warrant for knowledge, who is considered a legitimate knower, and how to balance a skepticism

for what people say with a respect for persons are not so easily separable in everyday life. More recently, scholars in social epistemology have sought to remedy these artificial separations by reconnecting epistemology with ethics or sociology of knowledge. Miranda Fricker, for example, has examined how some people suffer the particular injustice of being denied a capacity as knower because they are not recognized as credible based on the racial, gender, or other group to which they belong. And Helen Longino has argued that when some voices are systematically excluded from scholarly debate, the knowledge resulting from that debate suffers as it has not passed and been refined by the most comprehensive critical scrutiny.

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See also Edinburgh School of Sociology of Knowledge; Epistemologies, Teacher and Student; Feminist Epistemology; Knowledge, Analysis of; Multiculturalism; Positivism; Postpositivism

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EQUALITY OF EDUCATIONAL OPPORTUNITY

The concept of equal educational opportunity was thrust into prominence in the United States in the Supreme Court's 1954 decision in *Brown v. Board of Education.* The Court reasoned that equalizing educational opportunity had become imperative because it had become so tightly entangled with equalizing opportunity to access society's goods

more generally. The focus of the Court's decision was ending the legalized segregation of Black children in public schools. In 1965, with the passage of the Elementary and Secondary Education Act, the imperative to equalize educational opportunity was extended to low-income children. In subsequent years, court decisions and legislation extended the imperative further to address disability, language, and gender. Today, there are calls to include sexual orientation and immigrant status, among other categories.

Since *Brown*, considerable agreement has been reached that providing equal educational opportunity is morally required, at least for racial groups, low-income children, and girls and boys. However, just what this requirement entails more specifically continues to be controversial.

Inputs Versus Results

In his celebrated 1966 study of educational inequality, the sociologist James Coleman stimulated interest in the philosophical question of the meaning of the principle of equal educational opportunity, particularly regarding whether it should be understood in terms of school inputs—for example, the facilities and curriculum materials supplied to children—or in terms of the results schools produced, for example, children's academic achievement. Coleman suggested that a defensible conception of equal educational opportunity must involve the equalization of educational results. For, in making the determination of whether children were being afforded equal educational opportunities, equality of inputs alone is insufficient. Indeed, to identify something as a genuine educational input, it must be related somehow to the production of educational results.

At the time, philosophers were by and large dismissive of the idea that equal educational opportunity can or should be defined in terms of educational results. They countered with the observation that the existence of an educational opportunity provides a chance but no guarantee of producing educational results. Opportunities must be exercised to produce results, and one may choose to forego exercising them.

This choice-based conception of equal educational opportunity is problematic in several ways. First, Coleman is not unique in adopting a results-based position. In the 1974 *Lau v. Nichols* case, the U.S. Supreme Court rejected the San Francisco Unified School District's argument that it was providing

monolingual Chinese-speaking children with equal educational opportunity by providing them with the same inputs (books, teachers, and desks) that were provided to English-speaking children. The Court declared that such opportunities are not meaningful because there is no reason to believe that they can produce the desired educational results. This echoes Coleman's analysis. The same general contours are found in John Dewey's claim that the educative value of a given experience depends on how well it interacts with the characteristics of given individuals at the point in time it is presented to them. The general point is that educational opportunities cannot be abstracted from the interactions between the characteristics of individual children and what the institution of schooling provides to them. As the *Lau* case dramatically illustrates, what constitutes an educational opportunity for one individual can be quite meaningless for another.

A second way in which the choice-based conception is problematic is that educational results must be produced to open future educational opportunities. Literacy and numeracy are obvious examples of educational results that must be produced to provide children with meaningful educational opportunities as their educational careers unfold. The problem here is that the choice-based conception is blind to the special character of children's opportunities. The idea of having, but failing to exercise, an opportunity can be readily applied in certain circumstances involving adults, for example, as in "Arturo had the opportunity to attend Harvard but declined it." But children's educational choices cannot be approached in the same way, as in "Six-year-old Susan had the opportunity to learn to read but declined it." Susan would not be afforded such a choice—she would not be capable of responsibly exercising it.

The concept of equal educational opportunity must be viewed in terms of educational careers that include the achievement of numerous educational results, many or most of which are not chosen. The relationship between educational opportunity and educational results may be expressed as follows: *inequality of educational results provides prima facie but defeasible evidence of inequality of educational opportunity*. In the case of African Americans, for example, the cumulative evidence of their relatively lower achievement strongly warrants the conclusion that they are denied equal educational opportunity. Closer investigation reveals that the schools that they attend are relatively inferior. The original claim that African Americans are, as a group, denied equal

educational opportunity is not defeated. By contrast, one might claim that Arturo was denied equal educational opportunity compared with students with Harvard "legacies" because he attended State University rather than Harvard. Suppose on further investigation, however, it was determined that Arturo could have gone to Harvard but chose not to do so. He thus was not denied equal educational opportunity, and the original claim is defeated.

General Conceptions of Equal Educational Opportunity

Few, if any, advocate strict equality among education results. Analysis instead turns on the questions of how much educational inequality is permissible and due to what causes. Different answers to these questions are provided by three general conceptions: formal, horizontal, and vertical.

Formal Equal Opportunity

Formal equal educational opportunity requires that individuals not be denied admission to an educational institution because of discrimination on the basis of race, gender, disability, and so on. Formal equal educational opportunity is certainly an advance over the alternative of naked discrimination. However, it is a very weak conception of equal educational opportunity. On this conception, a child is not denied equal educational opportunity if she is turned away from a school because her parents cannot afford to own a home in an adequately funded school district, and if she must therefore attend an inferior, underfunded school. And this child would not be seen as being denied equal educational opportunity if she later failed to qualify for college because of her previous inferior education.

Horizontal Equal Opportunity

Horizontal equal educational opportunity requires equalizing educational inputs across educational institutions. The child of the previous example would be denied equal educational opportunity under this conception because her underfunded, inferior school does not provide her the resources needed to succeed equally to the children of the wealthier district. Although an advance over formal equal educational opportunity, the horizontal conception is also too weak. As illustrated by the *Lau* decision, educational inputs cannot be identified as such when abstracted from the individuals to whom they are provided. If the child in the example

is hard of hearing, for example, then being provided with the same inputs as other children, even in an adequately funded district, will not ensure that she is being provided with equal educational opportunity. Again, attention must be paid to the particular characteristics and associated needs of individuals to provide a meaningful kind of equal educational opportunity. This leads to the vertical conception.

Vertical Equal Opportunity

Vertical equal educational opportunity requires equalizing educational inputs from the bottom to the top of the learner advantages/disadvantages spectrum in given education contexts. Using the illustration of the *Lau* decision once again, the educational opportunities of Chinese-speaking children are equalized by tailoring educational inputs to their make-up, in this case providing some proven form of bilingual instruction. The same logic applies to income, race, gender, and disability. In each case, children may need to be provided *different* educational inputs in order to enjoy *equal* educational opportunity.

The Equality and Adequacy Frameworks

The two leading contemporary philosophic approaches to the analysis of equal educational opportunity are the equality and adequacy frameworks. Both are vertical conceptions.

The Equality Framework

The equality framework is associated with a meritocratic conception of equal educational opportunity. It permits educational inequality to the extent that it results from talent and motivation but not from sources such as social and economic class. The amount of permissible inequality is thus a function of inequality in talent and motivation. A more radical version does not permit even talent or motivation to be legitimate sources of inequality, to the extent that these are systematically related to social and economic class.

The equality framework conceives equal educational opportunity in terms of material equality. It emphasizes that education is a *positional good*, the value of which is determined relative to how much others possess of it, and by the fact that it enables the acquisition of other goods such as employment, a good income, and health care. For society to be just, then, education must be justly distributed, which is what the meritocratic conception of equal educational opportunity is designed to ensure. It does so by distinguishing morally relevant sources of educational inequality, such as talent and motivation, from morally irrelevant sources, such as the social economic class into which one is arbitrarily born. Permitting morally irrelevant sources to determine how much education individuals attain is unjust on this view, for people should not benefit or be disadvantaged by what they cannot be credited or blamed for, which surely includes the social economic class into which they are born.

The Adequacy Framework

The adequacy framework conceives equal educational opportunity in terms of political equality. Although not unconcerned with material equality, the adequacy framework places much greater emphasis on democracy than does the equality framework. This difference applies both to the question of what is to be equalized in the name of equal educational opportunity and the level of equality that is required.

Different groups of people place different value on education. The adequacy framework acknowledges this and holds, further, that a certain amount and kind of resulting educational inequality should be permitted in a democratic society. Equal educational opportunity is thus not a constant function of other variables as in the way the equality framework relates permissible inequality to talent and motivation. Rather, the adequacy framework specifies a certain threshold of education below which no educable child should be allowed to fall. This threshold limits the discretionary space open to democratic bodies, while permitting them to create inequality above the threshold.

Key to the adequacy framework is how it closely ties education to democracy. This is in contrast to the equality framework that treats education on the model of other goods to be distributed, emphasizing its position relative to other goods. In particular, the threshold is defined in terms of the level and kind of education required to foster the kind of equal status as a citizen associated with the ability to effectively engage in democratic deliberation. This is the conception of equal educational opportunity that a democratic society can legitimately insist its educational system provide in the name of democracy itself. Achieving it will spill over into requiring the achievement of a threshold of material well-being, without which equal citizenship cannot be realized.

Equality Versus Adequacy: The Disagreements

The equality and adequacy frameworks are not simply alternative approaches to equal educational opportunity. Their advocates are competitors, each critical of the other's stance both on how to avoid leveling down as the means to achieve equality, such that educational opportunity is equalized but at an inadequate level, and how to recognize education's position relative to other goods so as to avoid injustice overall.

The Leveling-Down Issue

The leveling-down issue is associated with the equality framework. Because the framework does not incorporate any substantive standard of education, one way to achieve equality is simply to reduce what is provided to those at the top of education resource distribution in order to reduce their advantage. Avoiding this maneuver has actually been a concern regarding the response of school districts to court decisions requiring the equalization of funding.

The equality framework may, indeed, face a practical political problem with regard to the leveling down of resources so as to achieve educational equality. But this is not the fault of the equality framework, philosophically speaking. The equality framework is "prioritarian," meaning it gives priority to improving the position of the disadvantaged in policymaking. It is by no means clear that leveling down is always, or usually, the best way to do this. Furthermore, the equality framework recognizes that education has nonpositional, or intrinsic, value, in addition to positional value. Coming to appreciate a good literature or an elegant mathematical proof are examples. The idea of leveling down does not apply to this kind of educational good because one individual's possession of a certain degree of it does not affect another's.

The Positional Good Issue

The adequacy framework avoids the leveling-down problem by requiring a substantive educational threshold. Advocates of the equality framework do not find this a compelling reason for adopting the adequacy framework. Indeed, because it pays too little attention to the positional aspects of education as a good, on their view, the adequacy framework is charged with being indifferent to inequality above the educational threshold that can result in unacceptable levels of inequality in other domains. Furthermore, the adequacy framework faces its own

practical political problem, in this case, that the threshold might be set too low. Indeed, wealthier parents would have an incentive to support just that and then devote extra resources to their children's educations above the threshold. What makes matters worse than in the case of the equality framework is that the state would be approving of inequality in adopting an adequacy framework.

Like advocates of the equality framework, advocates of the adequacy framework do not take the practical political problem to be a decisive criticism of their view, philosophically speaking. Their rejoinder to advocates of the equality framework regarding the positional good issue is that in a democracy, education is not, or should not be, a largely zero-sum good. Instead, it should be grounded in equal citizenship, which requires that certain relationships exist among citizens that enable them all to effectively participate in social and political life. This requires fostering tolerance, mutual respect, cooperation, and other skills that are acquired and honed collectively and that are thus quite unlike positional goods. Moreover, citizens who possess these democratic characteristics will not be disposed to use educational inequalities to unfairly gain other benefits.

Conclusion

A general, not to say unanimous, point of agreement has emerged among philosophers regarding equal educational opportunity: Formal and horizontal conceptions are too weak; a vertical conception is required. But controversy surrounding the concept of equal educational opportunity is by no means settled. The disagreement about whether the criterion of a vertical conception should be equality or adequacy remains intense. Resolving this disagreement may well turn on which of the equality versus adequacy frameworks, if either, takes hold in the practical political domain.

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See also Citizenship and Civic Education; Democratic Theory of Education; Dewey, John; Legal Decisions Affecting Education; Rawls, John

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Erasmus

Desiderius Erasmus (1469?–1536) was born in Rotterdam, the illegitimate son of a physician's daughter and a priest. From these inauspicious beginnings, he rose to become Europe's premier Latinist, as well as a celebrated biblical scholar and proponent of educational and religious reform. While as a young man, he was absorbed in the Greco-Roman classics; in his middle years, he turned his attention primarily to biblical scholarship. For the last 15 years of his life, he was embroiled in the controversies surrounding Luther's challenge to the Roman church.

During Erasmus's lifetime, there were two major systems of learning, which simultaneously competed with and supplemented each other. Scholasticism, dominant in the universities, had flowered in the 13th century, with the reintroduction of the logical works of Aristotle into circulation in Western Europe. Scholars were fascinated by the tools Aristotle's philosophy provided for unlocking the mysteries of Christian theology. Humanism, a product of the Italian Renaissance, abjured speculative theology and philosophy in favor of the *studia humanitatis*: studies of human beings, focused on living well in the world. Ethics, political philosophy, and life in the family and community were central to this program, which was rooted in the Greco-Roman classics. While the scholastics particularly favored dialectic (logic), humanists embraced rhetoric (the art of persuasion).

Erasmus's background exposed him to both of these forces. Early in his life, he gained a foundation in Latin letters at a school associated with the Brethren of the Common Life in Deventer, a movement of pious laymen who espoused a life of simple, humble piety. As a youth, he entered the Augustinian monastery at Steyn, where he took advantage of the extensive library to gain knowledge of the classics. In 1492, he enrolled at the University of Paris to study theology through the patronage of a bishop. Here, in the heart of the world of scholasticism, Erasmus found himself far more attracted to the society of humanists than to his theological studies. He supported himself through private teaching and published the first editions of pedagogical works for which he became famous: the *Adagia*, a collection of adages or commonplaces (with explanatory notes describing their meaning and origins in classical literature), and the *Colloquies*, a set of Latin dialogues on contemporary subjects, modeled on the Socratic dialogues. He would expand both collections through numerous editions over the remainder of his life. Other important works include the *De Copia* (1512), a manual for writing in the "abundant style" based on a section of Quintilian's *Institutiones Oratoria*. One of his students brought Erasmus to England in late 1498, where he met lifelong friends John Colet (who in 1509 became the founder of St. Paul's School) and Thomas More. Erasmus was inspired by these companions to turn his focus from the pagan classics to the literature of Scripture. His most famous work, *Praise of Folly* (1511), was dedicated to More.

Erasmus embarked on the study of Greek and began a thorough scholarly examination of the New Testament, including a new Latin translation that departed from the Vulgate (which had been universally in use up until that time), a critical edition in the original language, and an elaborate set of annotations. He expanded on the philological tools developed and utilized by the humanist Lorenzo Valla (1407–1457), who was highly attuned to language as an ever-evolving product of history. By accumulating and comparing manuscripts, Erasmus sought to arrive at an authoritative reading based on his knowledge of linguistic practices during the period in which the text was written. This work would involve him in numerous controversies, particularly with those embracing a scholastic approach, forcing

him to defend his translation in numerous apologetic works and in three subsequent editions of his New Testament. He also composed a set of paraphrases on the books of the New Testament and produced critical editions of the complete works of many of the Latin and Greek Fathers of the Church.

As a religious reformer, Erasmus promoted the idea of the *philosophia Christi* (philosophy of Christ), which he defined as an inner transformation brought about by encountering Christ in Scripture, in contrast to the highly technical philosophical approach of the scholastics. A critic of relics, private masses, pilgrimages, and special vows, Erasmus advocated a simple faith and humble conformity to the will of God. His approach retained its humanist emphasis on formation of the character through encounters with the finest texts; to Erasmus, reading Scripture was the ultimate act of communication for which one prepared through acquaintance with the figurative language of the best classical writers. With the advent of the Lutheran reform, Erasmus was unwillingly swept into religious controversy. For several years, he remained detached from the growing division, but finally, in 1524, he proclaimed his allegiance to the Roman church with his *Discussion on the Freedom of the Will.*

Erasmus's educational program was closely linked to his religious reform. Throughout his life, he advocated an approach that valued the moral formation of students through encounters with the best literature. He believed that the process of mastering Latin should be made as enjoyable as possible to make young people associate learning with pleasure. He subscribed to the humanist view that the ability to speak and write well was the foundation for a well-lived life and that by turning one's mind to the highest ideals expressed in the most beautiful Latin, the student could best realize his potential. His *Adagia* in particular provided young scholars with access to a wealth of knowledge in a form designed to stimulate their interest in developing a deeper understanding.

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See also Aquinas and Thomism; Aristotle; Cicero; Quintilian; Socrates and Socratic Dialogue

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ESSENTIALISM, PERENNIALISM, AND THE "ISMS" APPROACH

Essentialism and *perennialism* are terms coined in the mid-20th century to identify separate but related approaches to educational theory and practice. These terms have retained minor currency in an approach to teaching philosophy of education known as the "isms" approach. Even more than the isms approach in general, essentialism and perennialism are largely absent from contemporary philosophy of education or curriculum theory, though they persist in some college and university courses and are well represented on the Internet. These two isms are examples of historical efforts to make sense of educational tensions that became particularly salient in the early 1900s but that remain unresolved a century later. While today's educational theorists and reformers do not typically use the terms *essentialism* or *perennialism*, they continue to debate tensions between traditional educational aims for all children versus contemporary educational aims for students based on different student backgrounds, aspirations, and social conditions. *Essentialism* and *perennialism* were terms originally intended to characterize the most traditional of educational outlooks.

Isms in General and in Educational Theory

What has been called the isms approach in philosophy of education is simply an application of a common linguistic convention to academic purposes. We use the suffix *ism* most frequently to categorize commonalities in thinking and to distinguish them from one another, whether these be religions (Buddhism, Judaism, and fundamentalism), formal philosophical systems (pragmatism and existentialism), political ideologies (liberalism and socialism), convictions and biases (vegetarianism and racism), views of human learning (behaviorism and constructivism), patterns of thought and speech (dualisms and malapropisms), arts genres (impressionism and surrealism),

and so on without end. The conventionally regarded longest word in the English language is an ism (anti-disestablishmentarianism). The ism suffix typically identifies ways of thinking or believing and enables us to classify these ways of thinking conveniently.

To one extent or another, then, all isms are historical constructions: efforts to make sense of a complex thought world by creating classifications and categories under which multiple conceptual phenomena can be ordered, whether the phenomena in a given category are words, treatises, or deeds. Racism has countless manifestations, as do social-ism and impressionism. The phenomena that these three particular terms describe existed long before the terms were introduced in the 19th and early 20th centuries, but these terms have become familiar elements in our cultural vocabulary. What has been called the "isms approach" is first and foremost an approach to culture, language, and thought, not just an approach to teaching educational theory.

In educational theory, the isms approach had a kind of heyday in the early and mid-20th century, again as a response to conditions that preceded it. Theodore Brameld, an academic philosopher and professor at New York University, introduced a taxonomy of isms in 1950 that featured "four major outlooks," as he would term them toward the end of his career: perennialism, essentialism, progressivism, and reconstructionism. That these were Brameld's unique construction of what he considered to be "principal patterns" of thought, as he termed them, is evident from the fact that he chose not to use a variety of other isms with which he was familiar and which others have used before and since. Among these are idealism, realism, Thomism, and existentialism, which remain prominent among some textbook and web-based presentations of isms today, while perennialism and essentialism have receded.

Brameld noted in 1974 that his preferred isms had never been taken seriously by academic philosophers, nor were his own isms largely taken up by colleagues writing in the field of philosophy of education. He certainly could not have foreseen that 40 years later these four categories would still be alive and well on the web and that the isms approach in general would still be used in training teachers and philosophers of education. In 1986, one of the most comprehensive books ever written on curriculum theory listed seven different philosophical schools of thought: idealism, realism, neo-Thomism, natural-ism, pragmatism, phenomenology, existentialism—with no mention of essentialism or perennialism.

Almost 30 years later, the vocabulary of educational theory has changed, but the use of isms remains in theoretical markers, such as feminism, postmodern-ism, poststructuralism, postcolonialism, and others.

Such isms are distinct from those that Brameld offered in that they represent intellectual and artistic commitments entirely independent of educational theory, while Brameld intended his four categories to represent different approaches to theorizing about education specifically. There will always be a replenishing supply of isms; whether educational philosophers see them as useful in their theorizing and/or in their teaching is another matter.

The distinction between the use of isms in educational theorizing and in college and university pedagogy is an important one. Brameld was trying to make conceptual distinctions in educational theory and practice by using these four categories to speak to theorists and practitioners. Philosophers of education today do not use these older isms in their professional discourse, even disavowing them—but these older isms are still used by some college faculty to help novice educators in colleges and universities understand how educational practices and preferences are tied to deeper systems of philosophical thought—from idealism to existentialism to pragmatism to postmodernism. A popular text in philosophical foundations of education, published continuously for the past 18 years, devotes chapters to these isms as well as to Marxism, behaviorism, and reconstructionism, with extensive attributions to Brameld but nothing, however, on essentialism or perennialism.

Essentialism and Perennialism: Illustrative Isms From the Mid-20th Century

Brameld's apparent purpose in constructing his four particular categories was to show, in sharp relief, how conflicting ways of thinking about education had dominated the discourse in the first half of the 20th century. He was not trying to be comprehensive with respect to possible philosophical points of view about education: He was contrasting two traditional or conservative perspectives with two less traditional or progressive perspectives in educational theory and practice—in particular to argue for the superior value of the reconstructionist perspective, which he saw as the most promising path to democratic social change. His four categories were offered in response to now familiar late-19th- and early-20th-century debates about the purposes of education in

a changing society—one that was becoming rapidly more diverse demographically while urbanizing and industrializing at a disruptive pace. Dewey and others of similar mind argued that the old traditions in education could no longer suffice, while critics responded that the old traditions were needed now more than ever. Brameld characterized two variants of the more traditional position as essentialism and perennialism, and two variants on the less traditional position as progressivism and reconstructionism.

That these categories are taught today, with lessons and lectures posted on the Internet—often without attribution to any particular mid-20th century philosopher—creates a kind of reifying effect. It is as if these categories are objective, settled, and enduring knowledge in the field, and not acts of subjective interpretation that were offered in a particular context. It is something of an irony to notice that these terms have become inert knowledge, as the philosopher John Dewey might have characterized them, and objective categories to be learned as part of the tradition of the field. Such traditional knowledge was part of what Brameld was criticizing by making distinctions between essentialism and perennialism, on the conservative, more inert side, and progressivism and reconstructionism, on the more dynamic, socially responsive side.

As taught today, when they are taught, the meanings of essentialism and perennialism seem not to have strayed significantly from Brameld's original intentions. Though he viewed both positions as fundamentally conservative, Brameld saw perennialism as a classicist view that centered on the *perennial* value of the teachings and texts of classical Greece and medieval Europe—such as what Jefferson expected when he recommended Latin grammar schools for deserving youth in the state of Virginia. In contrast, essentialism was more changeable as great texts evolved over time and could be used to teach the great truths of human existence through a common core of *essential* cultural knowledge. Both were clearly teacher centered and curriculum centered, instead of child interest centered or social context centered, and both emphasized the development of traditional intellectual capacities and skills in mathematics, literacy, and reasoning.

Few educational theorists today would take something akin to a perennialist stance for all children and youth in schools; there is no public call for classics-based education for all, although college students and graduate students can still concentrate on the classics if they so choose. The essentialist view, however, is clearly alive in the use of the "great books" curricula in colleges and universities and in the Common Core State Standards movement in PreK–12 education. The Common Core Standards movement, at the time of this writing adopted by all but a few states in the United States, asserts that there is a body of knowledge, skills, and character traits that we rightfully expect all of our students to develop and that we should hold states accountable for providing this common learning. The argument is fundamentally grounded in democratic values of equity; but Brameld, like Dewey and contemporary critics of the common core, had serious questions about whether such a teacher- and curriculum-centered approach could serve most children well. These questions include the following: Does such an apparently equity-based philosophy make for good educational policy, or will a one-size-fits-all essentialist curriculum serve some children far better than others, depending on the social capital they bring to the school? Does essentialist common core thinking take sufficient account of the differences among children to ensure academic success for all of them, or will it favor some over others? These are the questions that, in part, motivated Brameld's concerns about essentialism and perennialism alike.

A related contemporary debate surrounds the "college for all" discourse in educational policy and practice in the United States. As the 20th century dawned, fewer than 10% of high school–age students graduated from secondary school, while a century later, it climbed to 67%, and at the time of this writing, it is a matter of national concern that only 75% of high school students graduate—the highest rate in decades, but leaving one million seniors who did not graduate high school. The concern among some theorists is that most jobs obtainable in postindustrial society by those without postsecondary education or training do not pay a living wage, in contrast to a time when high school dropouts could obtain more lucrative employment in business and industry—and send their children to college. While "college for all" seems like an appropriate aspiration for a society committed to equitable access to higher education and economic mobility, theorists today are asking, in effect, whether this is an essentialist perspective that again ignores the backgrounds and interests of literally millions of students who, on any evidence-based analysis, are unlikely to attend, much less graduate from, college. They are

asking what secondary education and postsecondary training and education should look like for these students.

In contrast to an essentialist curriculum of Common Core Standards and great books, critics are seeking ways to promote non-college-bound students' intellectual and emotional development and to prepare them to lead fulfilling lives after high school. They are seeking promising educational and economic alternatives for students who do not go to college. But such theorists find it difficult to even *talk* about alternatives to "college for all" without appearing to track students into second-class status in contemporary culture on the basis of their family incomes and ethnicity, an outcome familiar to mid-20th century educational theorists. The Common Core Standards and college-for-all positions are offered by their proponents out of consideration for democracy, equity, and high aspirations for all, but paradoxically, they are grounded also in essentialist theorizing that Brameld considered antidemocratic. This tension, highlighted by antiquated isms, remains unresolved today.

In 2013, poet and cultural critic Alice Walker published a short poem titled "Every Revolution Needs Fresh Poems." At some level, the isms approach of mid-20th century philosophy of education represented the poems of that time, but the poems certainly did not achieve the revolution (or even the reconstruction) that so many educational theorists intended. It is likely that fresh poems are needed.

Steven Tozer

See also Adler, Mortimer, and the Paideia Program; Common Curriculum; Cultural Literacy and Core Knowledge/Skills; Dewey, John; Progressive Education and Its Critics; Social Constructionism; Social Reconstruction

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ETHICS IN RESEARCH

Ethics in research covers three interrelated topics: (1) identifying and defining ethical principles and analyzing ethical issues entailed in the responsible conduct of research; (2) cultivating ethical behavior, including the capacity for ethical reasoning, to address dilemmas that arise in working with people in social, behavioral, and educational research; and (3) regulating ethical conduct.

Research here is defined—in accordance with the Common Rule of the U.S. Department of Health and Human Services, a U.S. federal policy regarding human subjects protection that applies to 17 federal agencies and offices—as any form of systematic investigation involving human subjects. This includes studies conducted via surveys, questionnaires, interviews, focus groups, case studies, experiments, observational techniques, and ethnographies, as well as research development, testing and evaluation, designed to develop or contribute to generalizable knowledge. (Ethics in research is also concerned with research that involves animals. Often, this is referred to in terms of *compliance*—with, e.g., the U.S. Public Health Service Policy on Humane Care and Use of Laboratory Animals—rather than *ethics*, yet the ethical treatment of animals in research is a subject in its own right.)

Ethical Principles and Issues

In discussions of ethics in research, attention is often focused on principles and issues that relate to working with human subjects or respondents in research. As discussed in the 1979 Belmont Report prepared by the National Commission for the

Protection of Human Subjects of Biomedical and Behavioral Research, these include

- respect for persons and their right to make decisions for and about themselves without pressure from the researcher;
- beneficence (and nonmalfeasance, i.e., do no harm) or the obligation to maximize the benefits and to reduce risks to participants in a research or evaluation study; and
- justice or the obligation to distribute benefits and risks equally without prejudice to particular individuals or groups, such as individuals with disabilities or members of a particular race or gender.

It is on the basis of these principles that the familiar notions of voluntary participation in research, informed consent, and assurances of confidentiality are discussed as central ethical issues in research practices involving human subjects.

However, ethics in research also involves ethical principles, such as honesty, integrity, transparency, accuracy, objectivity, impartiality, and trust, especially as these apply to aspects of the research enterprise other than working with people as the subjects or respondents in a study. Ethical considerations arise in all aspects of the research undertaking, encompassing what is commonly referred to as the responsible conduct of research. Conscientious, dutiful, and ethical behavior in research includes matters relating to advising and mentoring, authorship and the allocation of credit, peer review, conflict of interest, intellectual property rights, data management (includes processes for collecting data as well as issues in data ownership and the sharing of data), and research misconduct defined uniformly across U.S. federal agencies as fabrication, falsification, or plagiarism in proposing, conducting, or reviewing research and in reporting research.

Ethics in research also encompasses issues in the field of international research ethics, including the obligations of wealthy nations to ensure that the research they conduct in low- to middle-income countries is relevant to local populations and to take into account the impact of cultural differences on the interpretation and implementation of ethical principles and oversight.

Ethical Behavior and Reasoning

In the preparation of researchers, education and training in research ethics extend beyond reading the customary chapter on research ethics in the standard research methodology textbook. In the United States, every university and organization that receives federal funds for its research provides some form of required training, often using a subscription service to access online instructional modules, such as that provided by the nonprofit Collaborative Institutional Training Initiative. In addition, universities provide courses in research ethics in their curriculum and also offer special workshops and seminars.

In a widely cited formulation, the moral psychologist James Rest argued that ethical behavior is the outcome of four processes:

1. Moral sensitivity (the capacity to recognize the ethical issue at hand)
2. Moral judgment (competence in deliberating alternative courses of action and reasoning about what ought to be done)
3. Moral motivation (personal commitment to action and acceptance of responsibility for the outcome of one's action)
4. Moral character (persistence in the face of the temptation to take the easy way out)

Education in research ethics addresses these processes, particularly focusing on the skills of empathy and perspective necessary to cultivating moral sensitivity as well as the capacities needed to engage effectively in moral reasoning (e.g., grasping the features of the social context of the problem, gathering relevant facts, recognizing who has a stake in the outcome, analyzing and evaluating possible actions, and reflecting on one's action). Case-study methods, checklists, key question lists, and steps in critical thinking are four of the more common decision-making formats or guidelines used in the teaching of ethical reasoning. Research ethics education can also include instruction in ethical theories, including virtue ethics or the ethics of character or (what sort of people should we be) as explained in Aristotelian theory or the ethics of conduct (what sort of actions should we perform) as explained in consequentialist theories (e.g., utilitarianism) or deontological theories (e.g., Kantianism).

Ethical Regulation

Ethical conduct is regulated in four ways. First is self-monitoring on the part of the researcher. Assuming that individuals have developed the kind of moral motivation and character that Rest identified, they would be likely to reflect regularly on the

wisdom of their actions and modify their behavior as demanded in new circumstances. Second, monitoring takes place via codes of conduct as found in professional societies, for example, the American Psychological Association's *Ethical Principles of Psychologists and Code of Conduct*, the American Educational Research Association's *Code of Ethics*, and the American Evaluation Association's *Guiding Principles for Evaluators*. These codes set norms for what members of the profession expect and are intended to foster accountability and responsibility. Of course, these are guidelines for what is expected in professional behavior, although in some cases, there is a suggestion that they will be backed up by sanctions.

Third and fourth means of regulating ethical behavior are governmental regulations and institutional policies, both closely related. There are many federal rules, regulations, and guidelines having to do with ethical conduct in research, including the U.S. Public Health Service Policies on Research Misconduct, the Department of Health and Human Services Regulations, the Federal Whistleblower Protection Act, the Privacy Act as amended, and policies of individual departments—Agriculture, Justice, Interior, Commerce, Education, Energy, Transportation, and Labor. In addition, agencies such as the National Science Foundation, the National Endowment for the Humanities, and the National Institutes of Health each have their own policies and procedures regarding the responsible conduct of research. The National Science Foundation and National Institutes of Health require that all undergraduate and graduate students, postdoctoral researchers, and professors doing research (or supported on fellowships) funded by either agency must have training in the protection of human subjects in research. Each institution is responsible for the content and the delivery of training and its frequency.

The Common Rule requires that every institution or organization doing federally funded research must have an independent ethics committee or ethical review board that reviews all research involving human subjects. This Common Rule also specifies the composition of such a committee. (Each federal agency that funds research may have additional requirements for makeup of membership of the committee.) An ethics committee or, as it is more commonly known, an institutional review board (IRB) is charged with reviewing the informed consent process, appraising the balance of the risks to human subjects with the benefits to either them or society at large, and ensuring the equitable selection of subjects. An IRB must carry out these duties based on a thorough assessment of all aspects of the research design and systematic consideration of alternatives. In view of these and many other federal regulations, institutions (e.g., universities, hospitals, and private research firms that receive federal money) must have IRBs in place and must have procedures for determining research misconduct and conflict of interest, as well as training programs for ethical issues for all researchers who deal with human subjects (and animals). The U.S. Office of Research Integrity reviews and monitors the work of IRBs and pays particular attention to whether institutional policies for addressing charges of research misconduct are in line with federal regulations.

Thomas A. Schwandt

See also Ethics in Teaching; Rights: Children, Parents, and Community

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ETHICS IN TEACHING

In one obvious sense, the question of ethics in teaching is more straightforward than complex. The ethics to be followed are simply those of the controlling body, or authority. So if one is teaching in a faith school, the conduct of teaching is informed by the ethics of the religion in question: Catholic, Episcopalian, Muslim, Jewish, and so on. If one is teaching in a state school, the ethics are those authorized

explicitly or implicitly by the state: explicitly through a body of prescriptions and proscriptions, or implicitly through curriculum and assessment requirements that promote compliance with certain practices rather than others. Variants of a state-authorized ethics of teaching are to be found in democracies as well as in totalitarian countries, in local education authorities as well as in nationwide educational systems.

In the above account, the ethics of teaching as a practice are to be determined less by teachers themselves than by major institutional interest groups. These latter have historically included religious bodies, political parties, state bureaucracies, and business interests. More recently, they have also included cultural, ethnic, linguistic, and parental groupings. Indeed, struggles over the control and the ethical tenor of education by bodies other than educational practitioners are among the most prominent themes in the history of Western education. This entry examines the sources and justification of ethics in teaching, the development of practitioner codes for teachers, and the place of formal codes of conduct in the field of education.

A central assumption in the historical struggles over the control of education, and one that helps explain the pattern they have taken, is that teaching as a practice does not have an inherent ethics of its own; or that if it has, such an ethics remains subordinate to the ethics of a superior, controlling body. Here, however, the ethics of teaching remain essentially contestable, bound as they are to the "philosophy of life" of contending parties or individuals. Such contestation is likely to be chronic unless one or another of the contesting parties becomes the stronger party by securing political power.

Following this account to its logical conclusions, it would mean that there is no significant sense in which an ethics of teaching might be comparable with the ethics of other practices, such as medicine, nursing, or engineering, for example. Of course, in few, if any, practices, "Can practitioners themselves be the sole arbiters of the ethics of the practice?" But where the practitioners are a minor or unheard voice, questions arise about the coherence and defensibility of the goals the practice exists to serve.

This would be a rather cheerless conclusion to draw for a practice whose origins *as a practice*, at least in Western civilizations, granted substantial autonomy to educators. In classical Greece, the schools of the Sophists on the one hand and the more participatory Socratic learning environments

on the other were *both* free from control by a superior body. That is not to say that either form was free from external appraisal. The worldly ethical orientations of the Sophists' schools seem to have enjoyed unconstrained scope in Greek society. In contrast, the ethic of critical and self-critical inquiry practiced in Socratic educational circles eventually brought trouble on Socrates's head and on this form of education. The loss here was to become an enduring one, as a Socratic ethical orientation was to become more an eclipsed than a defining feature of education in Western civilizations. The ascendancy of Aristotelian and Platonist (more precisely neo-Platonist) influences became decisive in the educational institutions of Western Christendom. A Platonized Christianity became, in effect, the stronger party, and remained so. This curtailed the possibilities for the rise of a tradition of intrinsic ethics in teaching.

Following the publication of Jean-Jacques Rousseau's *Émile* (1762), Immanuel Kant's essay of 1784, "What Is Enlightenment?" voiced a further rebuke to a paternalistic ethics in education, castigating "the guardians who have so benevolently taken over the supervision of men." Kant declared, "Enlightenment is man's emergence from his self-imposed immaturity . . . the inability to use one's understanding without guidance from another" (p. 1). Echoes of this emancipatory note feature in the writings of Johann Heinrich Pestalozzi, Friedrich Froebel, John Dewey, and others, where elements of an intrinsic ethics of teaching are discernible, sometimes prominently so. Yet such writings—even Dewey's—do not make the ethics of teaching an explicit theme of a major work.

Richard Peters's major study of 1966, *Ethics and Education*, attempts just this. In seeking a universal justification for educational actions, Peters closely analyzes concepts like knowledge, understanding, cognitive perspective, equality, freedom, respect, authority, democracy, punishment, and discipline. He also reviews theories of justification like naturalism, intuitionism, and emotivism with a view to advancing his own positive theory, applying Kantian reasoning to ethical concepts in education and seeking to justify them in a universal sense. For instance, in relation to equality in education, he writes, "The general principle of no distinctions without differences is a presupposition of practical discourse, or that it is presupposed in any attempt to determine what ought to be done" (p. 121). Helpful as this approach might be as a general orientation (it would apply as much to politics, business, or public

administration as to education), it is not an ethics of teaching. An ethics of teaching, like an ethics of nursing or of engineering, is in the first place a *practitioner ethics*. It is linked inextricably to the goals of the particular practice in question. Peters clouds this point by claiming that "education raises no philosophical problems that are *sui generis*" (p. 17). In other words, education raises no ethical issues that aren't also raised in other walks of life. Even if one grants this claim, the more central issue for any practice lies in the *manner* in which ethical issues arise within the practice, and also in the *relative weight* to be given to different ethical principles when they come into conflict within the conduct of the practice. There are important differences between one practice and another on this, each practice being informed in the first instance by the coherence of its own central goals.

At a political level, many countries in recent decades established statutory teaching councils, or "colleges of teachers." Such bodies approve and publish ethical codes for teaching, and they mark a historic advance in establishing the ethics of teaching as a substantive domain. The formal character of such codes enables them to serve well as regulatory instruments, as for instance in providing clear criteria for fitness-to-practice investigations. But this formal character also gives primacy to an ethics of duty over an ethics of justice, of care, of vigilance, and so on in the conduct of teaching. It thus tends to favor compliance over deliberation among practitioners. At a philosophical level, theories of ethics do something comparable if they seek to furnish an ethics of teaching. For instance, Nel Noddings's instructive work *The Challenge to Care in Schools* (1992) gives primacy to an ethics of care, which provides more fertile inspirations than an ethics of duty for the actions of practitioners. But its priorities may yet deflect attention from other kinds of considerations that also need to be given weight in the actions that build vibrant, just, and safe learning environments.

Where a truly productive ethics of teaching is concerned, it is necessary that the deliberations and decisions of practitioners, including educational leaders, are afforded some promising pathways and defensible grounds for action. The main emphasis of such an ethics would not be on the alignment of practice to one or another ethical theory. Rather, it would be on the illumination of deliberations and decisions in *a context of specific educational action*—for instance, when principles of care conflict with those of justice in the assessment of students'

work, or where there are recurring tensions between concerns for quality and for equality in building and sustaining fruitful learning environments. Such deliberations would be informed in the first instance by some coherent articulation of the central goals of education as a practice in its own right. That is to say that an ethics of teaching is a less than coherent notion unless education itself as a human undertaking and the practices of teaching that promote the undertaking are conceived of as substantive rather than subsidiary.

Pádraig Hogan

See also Autonomy; Church and State; Dewey, John; Kant, Immanuel; Noddings, Nel; Peters, R. S.; Rousseau, Jean-Jacques; Socrates and Socratic Dialogue; Sophists; Teaching, Concept and Models of

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ETHICS OF CARE

See Noddings, Nel

ETHNICITY AND RACE

Human groups are invariably defined by their borders. From families to states, all groups do elaborate work mixing fact, fear, and fancy while deciding who they are by imagining who they are not. Racial/ethnic groupings are systematically arbitrary:

They easily could be otherwise, but their borders are often strictly enforced and correspondingly volatile. Certainly, racial/ethnic borders figure large in struggles for equal access to economic and educational resources. Late-20th-century inquiries into how they operate—or who they operated on—have shifted focus from the essential characteristics of the groups to the dynamics of power and privilege along the borders to which they must adapt. The focus has shifted from what the groups know, believe, or desire to the circumstances under which they must make their way.

Racial/ethnic borders usually divide groups by access to power. The less powerful have articulated the duality of their situation in ways the more powerful rarely recognize. In *The Souls of Black Folk* (1903), W. E. B. Du Bois reported that White America

> yields him no true self-consciousness, but only lets him see himself through the revelation of the other world. It is a peculiar sensation, this double-consciousness, this sense of always looking at oneself through the eyes of others, of measuring one's soul by the tape of a world that looks on in amused contempt and pity. (p. 3)

Sixty years later, in *The Fire Next Time*, James Baldwin reworked the point: That without White people, there would be no "Negro problem" and in fact no "Negroes in this country—[as] Negroes do not, strictly or legally speaking, exist in any other" (Baldwin, 1962/1995, n.p.). Racial/ethnic categories are reciprocally defined. Groups develop identities—and counteridentities—dependent on the groups around them. It is a mistake—or an act of violence—to categorize racial/ethnic groups in essentialist terms.

The key terms have been hundreds of years in the making. Excited by traveler accounts, medieval Europe imagined the other side of its distant borders populated with grotesque human beings: the *homo monstrous*. In the mid-1700s, Carl Linnaeus attempted taxonomies of all living things. He broke humans into five races: four defined by continent, skin color, and personality traits, and then a fifth, a catch-all category for leftovers: the *homo monstrous*. The first four designations—European, African, Asian, Amerindian—fill the commonsense categories of kinds of people to this day, and the stereotypes Linnaeus tacked on are unfortunately still recognizable: European (sanguine, inventive, and driven by law), African (phlegmatic, indolent,

and driven by whim), Asiatic (melancholy, severe, and driven by opinion), and Native American (choleric, obstinate, and driven by custom). His fifth race disappeared from serious accounts of human variation, although *homo monstrous* has survived in the shadows of the other four, ever ready for political intrigue, with each race potentially monstrous to the others.

Linnaeus took a strong hold on Western thought. Even the most liberating thinkers—David Hume and Immanuel Kant—speculated, with unreliable information, on the inabilities of various races. Other thinkers—Gottfried Leibnitz on Chinese philosophers in 1699 and Henri Grégoire on the achievements of people of African descent in 1808—used the same stock of facts to intuit what might be wonderful across racial borders. Either way, the fundamental assumption—that there are categories of people with inherently differential capacities for cultural accomplishment—went unquestioned. After Linnaeus, race became a scientific fact; after Charles Darwin, an evolutionary fact; and after Gregor Mendel, a genetic fact. Europeans investigated the facts: The number of races and their potentials were disputed, differential intelligence (a rare consideration before modern European cultures) became a scientific and biological fact, and White people dreamed of measuring intelligence across groups.

By 1900, racial theories celebrating White people and the rise of European civilization were countered by fact-filled arguments. Cross-cultural research became the center of antiracist inquiry. Franz Boas organized anthropology into four fields—cultural, physical, linguistic, and archaeological—each used to produce data-driven comparative inquiries into human capacities tuned to the affordances and constraints of various environments. For Boas, race, language, and culture are not inherently tied to each other, and any human being can, with proper socialization, participate fully in any culture. His major work, *The Mind of Primitive Man* (1938), showed that any human group, of any physical type, with any language, in any culture, can raise individuals rich in potential.

Across the 20th century, the scientific status of race declined, while racism remained rampant. Biologists no longer treat race as a variable in human potential, but biological systematics are generally irrelevant to racist convictions. Racists can focus on arbitrary phenotypic traits—skin color, hair type, and nose shape—in whatever percentages they please: Only a hint of African descent can make

a person Black in the West; only a hint of Caucasian descent can make a person White in Africa. Wobbly categories feed the prejudices with which they are used, and descriptions of race groups say more about their authors than about the people inscribed.

Boas critiqued scientific racism by finding more variation within than across named race groups. His findings were based on caliper measures of body proportions; mid-century anthropologists added similar conclusions with serological data, and geneticists have confirmed the results with data from inside cells.

While racial categories were losing scientific status, criteria for building hierarchies of cultural achievement came into question. Boas's era worried about how often and why civilization emerged in the ancient world. (Answer: six times; as to why: auspicious ecological conditions fitted to the right toolkit for a long time.) The original question–answer pair promised a celebration of the West's evolution from savagery and barbarism (loaded terms of the day), but by mid-century, *civilization* became a technical term for organizational achievements—large urban centers, a state apparatus, armies, hydraulic works, monumental architecture, craft specialties, a priestly class, and careful record keeping—regardless of intellectual or moral progress. Civilizations produced advanced capacities for and a record of cruelty and destruction. In contrast, the opposite of civilization, the so-called primitive, gained positive value.

For 50 years, race and ethnicity researchers have relied on modes of analysis similar enough to allow the term *racial/ethnic*. The terms also can be contrasted by the relentlessness of color racism and the situational flexibility of ethnic boundaries. So it is noteworthy that Irish and Jewish populations were once classified as non-White and transitioned (unevenly) to White racial status in the 20th century, but not noteworthy that, as White ethnics, they can negotiate—even ignore—their borders; a simple change of clothing, surname, or dialect might allow an identity shift. Another contrast is the ubiquity of interracial degradation and the occasional enormity of interethnic violence; the former, however unpleasant, can maintain a steady state, while the latter explodes more often into genocidal warfare.

Reconfigured ethnic borders can be surprising. Two thirds of the earth's population, one third of its languages, and a few of its races (however classified) live in Asia. Imagine the diversity of racial/ethnic categories that could be applied to populations from Pakistan to Japan. Now imagine them under a single ethnic category in one place: Asian American. In

Reading Asian American Literature (1993), Sau-ling Wong embraced this multiracial–cultural–national–linguistic ethnic union for its irony and political import. Asians were the only people denied entrance to the United States on racial grounds. Although the "Oriental" racial tag has been suppressed, new circumstances have brought the various groups together. In the new politics of ethnic categories, says Wong, timing and calibration are what counts. Even the borders isolating and protecting White people are changing, conversationally anyway, and sociolinguists have been documenting how White people must explain themselves in accord with current racial/ethnic arrangements. If borderlines between race groups soften, new ethnicities can emerge.

Shifting categories aside, ethnic borders can be continually renewed under diverse conditions across centuries. Borders can be stored in seemingly invisible places. Jewish people are not required for anti-Semitism to inflame political discourse in modern European nations (and in other, surprising, places, from modern Japan to villages in Mexico). Deep ethnic tensions in Soviet bloc countries disappeared under a half-century of strong central control only to explode under postsocialist conditions. Protestant–Catholic troubles in Northern Ireland fluctuate with unemployment rates but never disappear from neighborhood associations and marriage patterns.

Economic and power differentials dividing groups by locale, purpose, and sentiment are more constant than ethnic identities. Named groups can change, but their borders remain. When Polish, Italian, and Irish Catholic children attended their own schools in northern American cities before World War II, they had to run—not walk—through each other's neighborhoods, but after the war, the same groups moved to mix-and-match postethnic suburbs. Among the circumstances: a few million Latino and African American migrants moving to the cities. White ethnics are replaceable if others fill their slots when conditions organizing borders are more important than the characteristics of the people divided by them. When British geographers drew arbitrary borders in Ireland, India/Pakistan, Cyprus, and the Middle East, they cut through delicately nuanced groupings that had maintained difficult situations without uncontrolled violence, and the price has been heavy.

Ethnic groups and their tensions—schoolchildren escaping neighbors; terrorists in Ireland, India, and the Middle East—arise in resistance to and in cahoots with surrounding conditions extending to far-off points of contact and control. Disputed

borders, even those not in the highlights in global news—between spatially stable and transhumant groups in southern Iran, and between Moslem seafarers, pagan farmers, and Christian overseers in the war-torn southern Philippines—originate in conditions rooted in distant markets. Ethnic relations are increasingly tuned to how capital and culture work their way and sway around the world. In their book *Ethnicity, Inc.*, John and Jean Comaroff (2009) have gathered examples of a worldwide craze by which ethnic groups are selling their "natural" identities to tourists, nongovernmental organizations, and entertainment venues under desperate conditions that have made selling cultural products and the "simulacra of ethnicized selfhood" one of the few means by which members of some ethnic groups can survive. If 20th-century analyses have shifted from essential traits to local conditions edging ethnic finery into high visibility and contestation, 21st-century inquiries add accounts of global capital and population flows as the widest contexts for group conflict and commodification.

A final question: Given the vicissitudes of racial/ethnic phenomena, how can they consistently correlate with school success and failure? An answer: Racial/ethnic tensions, in tandem with poverty, are built into the daily practice of schools. The very institution designed to make borders unimportant has been co-opted into enhancing them. The shift from essentialist to more contextual views of racial/ethnic borders reformulates minority school failure by eschewing questions about what is wrong with individual children not learning to answer questions about how borders get re-created in schools.

Categories for racial/ethnic groups are tightly tied to measures of social class and educational risk, often stated in an established, but misleading, three-step order. First, racial/ethnic identities are defined as traits given at birth and made negatively consequential by prejudice and unequal conditions. Second, class is defined as mostly undesirable traits socialized into children with limited opportunities. Third, because racial/ethnic and class inequities are thought to suppress normal growth and development, minority and poor children are most at risk of school failure. This diagnosis lives in cultural preoccupations feeding a general bias: White middle-class lives offer children the best of all worlds. The bias leads to a disappointing policy of victim blaming the oppressor. Fix the children and racial/ethnic and class barriers to democracy can be toppled one person at a time.

An alternate three-step theory is possible. First, human variation offers a complex quilt of physical traits that can be dissected and highlighted to various ends. Second, because jobs, money, education, and degrees are the stuff of privilege, class can be redefined by access to resources regardless of the traits of individuals. Third, risks built into high-stakes politically manipulated win/lose contests like norm-referenced tests are a way of making racial/ethnic and class differences legitimate. This alternative order shapes a blame-the-oppressor bias: Because schools suppress normal growth and development for everyone in favor of preparation for tests well tuned to the established order, immigrant, minority, and poor children—being less receptive to the arbitrary but standardized curriculum—are most at risk of failure. The message to educators also changes: Failing children do not need to be fixed as much as they need, as does everyone, a learning curriculum connected to reality and eventual employment.

By this reformulation, the analysis of race and ethnicity in education can focus less on *what* traits correlate with what outcomes and more on *how* school outcomes are made to correlate with the categorically flimsy data of ever-shifting, ever-shifty, racial/ethnic traits. New analyses should show *how* racial/ethnic borders get done: by what work, by what schedule, in response to what demands, and how far away in the world?

Ray McDermott

See also Anthropology of Education: Main Traditions and Issues; At-Risk Children; Identity and Identity Politics; Racism and Multicultural Antiracist Education; Social Class

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EVALUATION OF EDUCATIONAL AND SOCIAL PROGRAMS: MODELS

Program evaluation is the systematic determination of a program's value (merit or quality, worth, or significance). It is a form of disciplined inquiry that involves careful design of a study to take into account program objectives and outcomes as well as issues of greatest concern to stakeholders, rigorous procedures to gather credible evidence of program value, and transparent, justifiable processes for linking evidence to evaluative conclusions. This entry discusses several approaches to program evaluation: results-based approaches, social value approaches, process-oriented approaches, stakeholder-oriented approaches, and program-theory approaches.

An educational or social program is an organized collection of activities and processes aimed at achieving particular objectives, for example, an early childhood intervention program implemented statewide providing a range of educational, medical, and social services to enhance young children's development and learning and to provide support services to families; an after-school science program for middle school children delivered in an informal learning setting such as a Boys and Girls Club designed to advance science learning as well as attitudes toward science; a case management program implemented in a large urban city intended to prevent recurrent homelessness in people with mental illness; career academies that operate as small learning communities within low-income high schools providing academic, career, and technical courses and workplace opportunities in cooperation with local employers; and a high-intensity supervision program for probationers at risk of probation violation designed to reduce the incidents of rearrest. Programs vary in complexity depending on their level of maturity (i.e., a relatively new program versus one that has been operating for several months or years); the social political circumstances in which they were conceived (i.e., the program's political profile, the types and degree of risk inherent in the program); the social, political, and cultural contexts in which they are implemented; the number of sites in which they are offered; the number of participants involved; and the range, complexity, and duration of activities that constitute the program.

Program funders and stakeholders (parents, program managers, direct service providers, the general public, etc.) are often interested in whether a program has had its intended effect(s) and whether those effects were achieved in a cost-effective way. They may also be interested in how a program might be improved, whether it was perceived as worthwhile by program participants, whether program goals were reasonable and worthy of pursuit, and whether effects other than those intended resulted from the program.

Evaluation Models

It is questionable whether the term *model* is the correct designation for the extensive variety of evaluation approaches that scholars and practitioners have developed in the past 40 years. If the term *model* is used in the sense of a scientific model—an approximation or representation of a real system or phenomenon—then what we find in evaluation are not models per se but rather different interpretations of and perspectives on the purpose of evaluation and how it should be conducted. Thus, the terms *framework*, *orientation*, or *approach* are probably more semantically correct designations. While there is considerable disagreement on how these many approaches should be classified, generally speaking, they are distinguishable in terms of what they put forward as the primary organizing principle for program evaluation. The families of approaches presented below are not mutually exclusive—there is

nothing in principle preventing the combination of evaluation approaches in a single evaluation study. What constrains the choice of approaches are practical matters including costs of implementing a particular approach in view of available funds, evaluator experience and preferences, timelines, contract requirements as reflected in an evaluation's terms of reference, and so on.

Results-Based Approaches

What this collection of approaches has in common is a primary focus on (1) whether stated program goals, targets, or objectives were met—this is often referred to as outcome evaluation or outcome monitoring, or on (2) program effects or outcomes regardless of whether they were intended or unintended—this is commonly called impact evaluation. Some evaluators concerned with this second focus practice what is called "goal-free evaluation" and argue that programs ought to be evaluated not on what they are trying to do (i.e., not on what their stated goals are) but on what they actually accomplish.

Impact evaluations are primarily interested in the causal question in the generic form "what is the effect of a known cause," where the cause is the program in question. Impact evaluations are often designed to test the counterfactual—that is, a comparison between what happened and what would have happened in the absence of the particular program.

Impact evaluation approaches differ in the way the cause–effect relationship is examined. Some treat the program as a black box and focus on mean differences between the group of individuals who went through the program and the group that did not (or who received some alternative program). Others endeavor to get inside the black box and explain the causal mechanisms by which the program works (see the discussion of program-theory approaches below). Still other results-based approaches rely on systems thinking and complexity science to grasp how program effects are to be understood and explained. System effects or system–context interactions are of particular interest to evaluators working in fields like public health where the effects of a given public health intervention (e.g., a smoking cessation program or an obesity prevention program) are not necessarily a direct result of a single intervention but of the complex interaction of that intervention with other interventions, health policies

and practices, the norms and practices of service-providing organizations, client behaviors, and so on in a given community.

Although referred to as research rather than evaluation, comparative effectiveness studies in the field of health care are a results-based evaluation approach. These studies compare the effects of two interventions (therapies, drugs, surgeries, means of health care delivery, etc.) to determine which works best for particular patient populations and what benefits and harms are associated with each intervention.

Social Value Approaches

In public and private sectors, there is strong interest in the development of quantitative indicators (metrics) that reveal the social or public value of investments in programs. However, it is widely acknowledged that there is no agreed-on, authoritative definition of social value and that metrics used to assess social value often conflate measuring social impact with demonstrating accountability to external stakeholders. Some scholars argue that real-world problems and the programs (interventions) designed to address them cannot be captured with the kind of precision that measures of social impact demand. It is often quite difficult to quantify let alone monetize the benefits of various kinds of social programs (e.g., the benefit of living in a more just society; the consequences of antiracist programs).

The most common social value evaluation approaches are cost–benefit and cost-effectiveness analysis, but there are dozens of others, including ex-ante stated preference analyses, that ask people what they would pay for a given service or outcome; social return on investment assessment; and value-added analysis, as has been employed, for example, to determine how much teachers add to the overall quality (academic performance) of their students. In the field of development evaluation, quality-of-life indicators, such as the United Nations Development Program's Human Development Index or the Organization for Economic Co-operation and Development's Better Life Index, are used as proxy measures in evaluating the collective outcome of multiple social and educational interventions affecting the general well-being of societies as a whole.

Process-Oriented Approaches

These approaches are focused on evaluating program implementation and are typically concerned

with what is done, when, by whom, to whom, and how well. Evaluations of this kind pay careful attention to

- describing the operating environment or context(s) of a program;
- the actual processes involved in the program (e.g., planned and unplanned participant interactions, extent and nature of participation, nature and duration of program activities such as use of technology, training, workshops, or counseling); and
- problems encountered in program delivery, modifications made in original delivery plans, the addition of new program objectives, and so forth.

Evaluations of this kind can be used to determine the feasibility of a program during a pilot stage, whether a program was implemented as planned (often a serious concern in programs with multiple sites where local factors or circumstances can either facilitate or interfere with the reliable implementation of a program), and/or program effort. Process evaluation can provide decision makers with information useful in improving, refining, modifying, and, in some cases, discontinuing a program by delivering information on a program's circumstances or situation (changing conditions that affect the implementation of a program) and on program performance (progress on achieving intended results).

Progress monitoring is an example of a process-oriented approach. Take, for example, the case of a school district that implemented a response to intervention model (according to the National Center on Response to Intervention, this involves designing and implementing a process to identify students at risk for poor learning outcomes, monitor student progress, provide evidence-based interventions, adjust the intensity and nature of those interventions depending on student response, and identify students with learning disabilities or other disabilities). The district might develop a progress-monitoring system to determine whether all teachers are successfully implementing the response to intervention model across all classrooms in the district.

Stakeholder-Oriented Approaches

Stakeholders in an evaluation include individuals and groups with an interest in program outcomes. They include individuals involved in operating the program (e.g., program managers, service providers), individuals (or agencies) funding a program, individuals served by the program (program beneficiaries), individuals or collectives indirectly affected by a program (e.g., citizens in a community receive indirect benefits because the community has a vigorous program to help women who are victims of domestics abuse), and individuals who will use the evaluation to decide something about the program. Stakeholder-oriented approaches are first and foremost concerned with how an evaluation includes and serves these groups of individuals. It should be apparent that deciding just who among these stakeholders should be involved in evaluation, and how, is a topic of considerable discussion and debate among advocates of stakeholder-based approaches to evaluation.

This family of evaluation approaches includes those that are referred to as participatory, collaborative, empowerment oriented, client or stakeholder oriented, appreciative, and responsive. Distinguishing characteristics of these approaches include a focus on locally relevant evaluation questions, efforts to be directly responsive to issues and concerns of the most immediate stakeholders, and the involvement, to varying degrees, of stakeholders in the evaluation. In collaborative approaches, evaluation becomes a shared responsibility of the evaluator and key stakeholders. In participatory and collaborative evaluation approaches, stakeholder participation can range from being active in the design of the evaluation to roles in the collection and analysis of data as well as reporting. Participatory evaluation can also take two forms: one more or less practical and utilization oriented and another more or less transformative and focused on empowerment of participants in the evaluation. Stakeholder-based approaches to evaluation can be used to build evaluation capacity with an organization (i.e., a "culture" of evaluation) and to enhance and sustain critical, reflective organizational learning. Responsive evaluation orients to the uniqueness of a program in context and the plurality of views, expectations, and standards that attend program performance; its essential feature is attention (responsiveness) to critical issues and concerns raised by those most familiar with a program.

Culturally responsive evaluation has arisen in recent years as an important development in stakeholder-based approaches. It argues that culture defines the context in which particular conditions come to be defined as social and education problems,

the ways in which programs are developed as solutions to those problems, the way programs are theorized (see below) and implemented, and the way in which evaluation evidence is gathered and findings are interpreted. Culturally responsive evaluation strongly emphasizes that evaluators must not only be cognizant of these aspects of culture in evaluation but also be competent in designing and implementing an evaluation that takes these aspects fully into account.

Program-Theory Approaches

Program-theory approaches are concerned with how a particular program actually works—they focus on developing an explicit theory of how a program is expected to bring about desired change and testing assumptions that underlie such a theory. These approaches to evaluation endeavor to get inside the black box of a program to understand how various components of a program work in concert to produce desired outcomes. A program theory is often graphically represented using a logic model (also referred to as a program matrix, theory of change, theory of action, or logical framework). The model displays logical links among program inputs (human, financial, and organizational resources directed toward the program), activities (processes, events, and actions such as recruitment, screening, workshops, training, counseling, appraisals, assessments, etc., that constitute program implementation), outputs (direct products of activities such as types, levels, and targets of services), and short-term, intermediate, and long-term outcomes (specific changes expected in program participants' behavior, knowledge, skills, status, level of functioning, etc.).

These models can be both descriptive (how the program actually works) as well as normative (how the program is supposed to work). Program-theory approaches use such models to guide a variety of evaluation activities and decisions, including identification of program dimensions most critical to program success, selection of appropriate measures and observations, identification of successes or failures in various aspects of program implementation, and interpreting evaluation findings. In many versions of program-theory approaches, stakeholders are directly engaged in the process of developing the program theory as an essential step in evaluation planning. Some scholars advocate combining impact evaluation with a theory-based approach to create theory-based impact evaluation. They argue that

such an approach enhances the policy relevance of an evaluation because it becomes possible to understand the reasons for differing levels of program participation and the processes responsible for affecting changes in the behaviors of participants. A particular version of theory-based impact evaluation known as realist evaluation holds that programs "work" for different people in different ways and thus an evaluation must uncover the links between mechanisms that trigger individual behavioral change and contexts that enable or constrain such mechanisms; hence, context + mechanism = outcome.

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See also Case Studies; Connoisseurship and Educational Criticism; Curriculum, Construction and Evaluation of; Experimental and Quasi-Experimental Designs for Research: Campbell and Stanley; Qualitative Versus Quantitative Methods and Beyond

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EVIDENCE-BASED POLICY AND PRACTICE

The idea that professional practices such as education should be based on or be informed by research evidence has, over the past two decades, become influential in policy, practice, and research in many countries around the world. The aim of this entry is to clarify what the idea of evidence-based policy and practice entails, to trace its rise in the field of education, and to discuss a number of critical issues that have been raised in the literature.

The Idea of Evidence-Based Education

The suggestion that education should become an evidence-based profession emerged in the 1990s. In part, it resulted from concerns about the quality and significance of educational research, where it was argued that such research was not generating useful knowledge. It also arose out of concerns about educational practice, where it was argued that much of what was going on had no basis in research evidence. The idea that research evidence should play a role in professional fields such as education is not without reason, because professions, unlike other areas of work, lay claim to having specialized knowledge and skill. The question, therefore, is not so much whether or not evidence should play a role in education but what kind of role it can play and also what role it should play.

Opinions are clearly divided on this issue. The most vocal arguments have been made by those who argue for a very particular kind of evidence—usually referred to as evidence about "what works"—and for the use of one specific research design, namely, the large-scale randomized controlled trial. The key idea of this design, which stems from research in fields such as medicine and agriculture, is that the effectiveness of a certain intervention or treatment can be tested by comparing a treatment group with a control group and by randomly allocating the treatment. If the treatment shows the expected effects in the treatment group, but there is no change in the control group, it can be assumed that the treatment or intervention works.

Many proponents of the idea of evidence-based education not only have argued that such evidence might play a role in educational policy and practice but also have taken the stronger position that educational policy and practice should be based on such evidence. Some have even argued that teachers and policymakers should not be allowed to do anything for which there exists no conclusive scientific evidence of its "working." A key question here is whether scientific evidence should ultimately *replace* professional judgment and decision making or whether it should play a role in informing such judgment and decision making. This is sometimes captured in the distinction between evidence-based education and evidence-informed education.

What Works: For What?

While the idea that education should be based on evidence about "what works" sounds attractive, and while it could be argued that questions about what works are at the forefront of teachers' everyday concerns, the idea that teachers just need to implement scientific knowledge about "what works" in order to be good teachers is both simplistic and misleading.

One problem with the idea of "what works" is that it tends to forget to ask the question what a particular way of doing is supposed to work *for*. The problem here is not only that discussions about "what works" in education tend to pay little attention to the more difficult question what education is supposed to work *for*. More important, it is also that educational actions and activities never "work" or aim to "work" in relation to one particular outcome or result but always in relation to a number of different areas or domains. It is, after all, not only that we want our students to acquire particular knowledge or master particular skills. At the very same time—if, that is, our overall aim is not that of indoctrination but of education—we also want our students to be able to think and judge for themselves and to develop a range of different personal qualities such as empathy, curiosity, compassion, or a democratic attitude.

While particular educational strategies might "work" in relation to one of these domains or with regard to one particular outcome, it is unlikely that such a strategy will also "work" in relation to other domains. The multidimensional nature of educational purpose (see Biesta, 2009), thus, already creates a problem with the idea that good teaching is simply a question of implementing evidence about "what works." Judgment is needed not only to determine what education needs to work *for* but also to find a meaningful balance between the different domains in which education seeks to function, particularly with regard to the trade-offs when achieving results in one domain may go against achieving results in another.

Judgment is also needed because the means of education are not neutral with regard to the ends—which, in more everyday language, refers to the fact that students not only learn from *what* we teach them but also from *how* we teach and approach them. Even if research were able to provide strong evidence that a particular way of doing may bring about particular effects, there is still the question whether this way of doing is educationally desirable. There may well be conclusive evidence that corporal punishment is the most effective way to modify someone's behavior, yet we may still decide not to act on this evidence because we do not want to teach our students that corporal punishment is ever justifiable.

The Limits of the Medical-Agricultural Model

A second problem with the idea of evidence-based education has to do with the fact that, at least in its "what works" form, it takes its conception of research—and by implication also its conception of education—from the fields of medicine and agriculture. Whereas randomized controlled trials might make sense in such domains—although even there, questions about what interventions and treatments are supposed to work *for* is a relevant question—simply transplanting such an approach to the field of education is not without problems. The main problem has to do with the fact that the fields of medicine and agriculture deal with physical processes of push and pull, whereas education is fundamentally a social process of communication, meaning, and interpretation. This also shows why it is a mistake to think of teaching as an intervention or treatment; the "recipients" of our educational efforts are not random objects that we intervene on but human subjects in their own right who, as students, have to make sense of what their teachers say and do. It is therefore only in cases where we would conceive of education as the external modification of behavior that the medical-agricultural model might make some sense. Yet most educators would see that as a case of indoctrination rather than of education, precisely because it conceives of students as objects of our interventions and control rather than as human subjects on their way to independent thought and responsible action.

What Kind of Evidence?

A final point has to do with the idea of evidence itself and, more generally, with the question what kinds of knowledge might be of benefit to educational practice. In the research and policy literature, the emphasis is exclusively on technical knowledge, that is, knowledge about relationships between particular actions and the consequences of those actions. While such knowledge can be useful in guiding educational actions, even then it is important to acknowledge that any knowledge we gain about relationships between actions and consequences can at most provide us with possibilities—it can tell us what has worked in the past under specific conditions and in relation to particular individuals or groups—but not with certainty about what will work in the future. Added to this is the fact that educational research and scholarship not only generate insights in relationships between actions and consequences but also provide different interpretations and understandings of educational phenomena. While such knowledge does not provide us with a "base" for educational action, it can nonetheless be highly useful for educators as it helps them see their practice in new and different ways. This can contribute both to understanding particular problems or issues in a new light—think, for example, how sociological research has deepened our understanding of the ways in which education reproduces social inequality—and to new and different ways of working. To suggest that research should provide only technical knowledge and should operate only through randomized controlled trials thus takes a very narrow view of the actual contribution research and scholarship can make to educational policy and practice.

Conclusion

While, at first sight, it may sound obvious that educational policy and practice should be based on scientific evidence about "what works," a closer inspection indicates a far more limited role for evidence in education than what proponents of evidence-based education often seem to be after.

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See also Accountability and Standards-Based Reform; Educational Research, Critiques of; Experimental and Quasi-Experimental Designs for Research: Campbell and Stanley

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EVOLUTION AND EDUCATIONAL PSYCHOLOGY

When psychology began to develop as an academic field in the late 19th century, evolutionary ideas were much in vogue. As a result, virtually all of the first generation of American psychologists, like many elsewhere, adopted an evolutionary approach to the field. An evolutionary conception of mind led William James (1890/1950) to argue that consciousness "exists" (as a function, not a thing); it had practical, adaptive value:

> Man, we now have reason to believe, has been evolved from infra-human ancestors, in whom pure reason hardly existed, if at all, and whose mind, so far as it can have had any function, would appear to have been an organ for adapting their movements to the impressions received from the environment, so as to escape the better from destruction. Consciousness would thus seem in the first instance to be nothing but a sort of super-added biological perfection— useless unless it prompted to useful conduct, and inexplicable apart from that consideration. (pp. 23–24)

James's student, G. Stanley Hall, influenced by Charles Darwin and by Ernst Haeckel's notion that "ontogeny recapitulates phylogeny" (individual, including embryonic, development retraces the evolutionary development of the species), helped found the child study movement and the field of developmental psychology. John Dewey, one of Hall's students, adopted a neo-Hegelian approach to psychology, which focused on cultural

rather than biological evolution, altering his interpretation in a more naturalistic (Darwinian) direction after reading James's *Principles of Psychology* (James, 1890/1950). James Mark Baldwin also adopted an evolutionary approach when considering the functional selection of a child's behavioral repertoire within an evolving sociocultural context. Baldwin, in turn, influenced Lev Vygotsky, Alexander Luria, and Jean Piaget.

Evolutionary Philosophy

Evolutionary ideas were in some cases generalized into overall philosophies, or philosophical approaches, in which everything was considered from an evolutionary standpoint. Herbert Spencer applied his notion that things evolve from simple homogeneity to complex heterogeneity to virtually every subject. Charles S. Peirce developed a much more rigorous evolutionary philosophy involving the interplay of chance, continuity, and the statistical tendency to form law-like "habits." Dewey and George Herbert Mead drew on Peirce, developing their own evolutionary philosophies. Among the things that evolved were acts themselves, which were viewed as temporal developments rather than given entities.

One of the attractions of an evolutionary approach was that it promised to help resolve difficulties created by Cartesian dualism. Descartes's conception of mind and body as categorically different entities, bodies being physical machines and souls or minds metaphysical entities capable of abstract reason, made the body unintelligent and the mind disembodied. It also created insuperable difficulties in understanding how two completely different kinds of things could interact in the individual. An evolutionary approach promised to restore continuity by viewing human mental functioning as a refinement of simpler processes evident in social animals or even simpler organisms or natural processes and the body as more end directed and, thus, implicitly more intelligent than a machine. In effect, reason became more practical and practice more reasonable when viewed from an evolutionary perspective.

Growth of Differential, Comparative, and Developmental Psychology

As Boring (1929) notes, three subfields of psychology important for education developed out of these initial concerns. Differential psychology—the psychology of individual differences—emerged from

the concern of Darwin's cousin, Francis Galton, for hereditary differences in "genius." This led to the eugenics movement, IQ (intelligent quotient) testing, and trait psychology. Comparative psychology, concerned initially with studying the mental functioning of different species in laboratory experiments, turned into behavioristic psychology, which focused on learning processes common to rats, pigeons, and humans. Concern for individual ontogeny in an evolving sociocultural context turned into developmental psychology, which tended to focus on universal stages of human development. These three emphases constituted most of educational psychology up to the late 1950s, with the notable exception of clinical or "abnormal" psychology, which was considered beyond the pale scientifically.

Romantic, Survival of the Fittest, and Interactional Conceptions of Evolution

Different conceptions of evolution were also in play at the turn of the 20th century, as are different versions today. In what might be called the "Romantic" conception of evolution, the individual was seen as the source of major change, as in the neo-Hegelian emphasis on the importance of "world-historical" individuals, like Napoleon or biological interest in "hopeful monsters," uniquely different organisms that, if viable, could take evolution in a new direction. A more conservative interpretation viewed change as coming largely from the outside, as individuals are forced to adapt to environmental contingencies over which they have little control. Spencer and William Graham Sumner were among the proponents of such a survival-of-the-fittest attitude in social life, commonly referred to as Social Darwinism. Finally, an "interactional" conception viewed organisms as affecting their environments and as being affected in return, the course of interaction being contingent in each particular case. Dewey, with his emphasis on the interplay of "doing" and "undergoing" and intelligent experimentation to learn how things work, was an important proponent of this approach, as was Lester Frank Ward in sociology.

Subsequent Interpretation

While all three of these approaches were present in late-19th- and early-20th-century debates, the approaches that survived in mainstream psychology, represented by the subfields discussed earlier, can be viewed as the fruits of the more conservative

adaptationist interpretation. This may have been, in part, because new developments in physics made it, rather than biology, the dominant field to emulate, giving psychology its often discussed "physics envy." Logical positivism also contributed in emphasizing the verification of scientific laws by inference-free observations. The resulting focus on behavior measured in terms of external norms (e.g., those embodied in IQ tests) on contingencies of reinforcement, or on universal stages of development, made the development of a narrow version of "scientific" psychology easier but truncated psychological understanding by overlooking the ability of organisms in natural settings to alter the contingencies facing them or leave an environment for another they preferred (McDermott & Hood, 1982; Newman, Griffin, & Cole, 1989).

With the coming of the cognitive revolution in the late 1950s, the computer became the new model for the mind, and computer science the new field for psychology to emulate. With more going on "inside" the mind, even though it was conceived as a complex machine, it became less possible or desirable to simply read off performance scores based on external norms. One had to understand inner rules and processes and not just the eventual outcome. This created some evolutionary and developmental difficulties for those adopting a classical symbol processing approach to mind, based on the computer, like Allen Newell and Herbert A. Simon, because to get such a process going, one had to have the basic components in place at the beginning. In effect, one had to have the equivalent of a computer and some basic software already in place for "thinking" to begin. This tended to force cognitive psychologists into forms of nativism, as in Noam Chomsky's argument that human beings are born with an innate "language acquisition device" enabling them to learn syntax, Jerry Fodor's argument in favor of innate mental modules, or Howard Gardner's (1985) claim that each of his multiple intelligences has a given biological substrate. Such accounts tend to be evolutionarily unsatisfactory because they seek to explain the development of mind by asserting that its essentials were already there in the first place.

The discovery of DNA (deoxyribonucleic acid) in 1953 would lead to a renewal of interest in biological ideas; biology has again become a field for psychology to emulate. Evolutionary ideas are also back in vogue, and different conceptions again are in tension. One of the differences between the present debate and that of the first half of the 20th

century is that the individual is less likely to be considered the basic unit of analysis. Developments in cellular and molecular biology have made it tempting to begin at a lower level, such as the neural or genetic level. At the same time, as Bredo (2000) notes, the development of linguistics and the sociocultural sciences, as well as linguistic and social philosophy, make it also tempting to begin at a higher, sociocultural level. (In a sense, the situation can be described as a clash between genetic or biological determinism on the one hand and cultural constructivism on the other.)

The emerging field of evolutionary psychology adopts the first strategy, attempting to explain widely adopted forms of social behavior in terms of lower-level genetic adaptations. Some social behavior, such as altruism, may appear difficult to understand from an individual point of view, for example, because it is apparently irrational; however, as Richard Dawkins points out, it can be understood as rational from a genetic point of view if the survival of sufficient numbers of near kin bearing one's genes is ensured by such behavior. This suggests that cooperative social behavior may be more explicable on genetic rather than individual grounds. Such considerations led E. O. Wilson to argue that human nature consists of predispositions to behave in certain ways as a result of epigenetic rules "built into the brain in the form of a learning bias" (Wilson, 1996, p. 18), leading people to tend to learn certain forms of behavior more readily. This argument is used to support both the notion that human nature is universal and the conservative political point that relatively universal forms of social life, such as traditional gender roles and social hierarchies, persist because they made, and possibly continue to make, adaptive evolutionary sense.

A directly opposing approach argues that individual minds and personalities are products of different cultures and social positions, each of which is evolutionarily unique (like the "hopeful monsters" mentioned earlier). Those from different cultures, or members of different social categories within a culture, such as men and women, are believed to develop categorically different ways of thinking as a result of differing cultural norms and structural contingencies (Maltz & Borker, 1982). Even organic characteristics, such as bone development and musculature, not to speak of literal inscriptions, such as tattoos, may be socially "inscribed" on the person. Thus, rather than one universal form of human nature, or one universal form of reason, there are many essentially different forms of human nature and many

essentially different "mentalities." Individual personalities and mentalities are, then, seen as the product of a person's location at the intersection of the groups and categories to which he or she belongs. The obvious political point is that such essential differences should not be ignored or marginalized by assuming that there is only one universal human nature or one universal form of mind or reason.

An alternative to both of these views is, again, some form of interactionism. Unique, multiply potentiated individuals grow up in unique, multiply potentiated social environments, each interacting with the other to create a life trajectory or set of life trajectories. Humans are indeed a distinct species, as emphasized by those arguing for a universal human nature, but what they share most fully are early phases of development, such as sensorimotor skills, that are very similar to the early accomplishments of other species (Scarr, 1983). Specialized adult accomplishments, which should *also* be considered part of "human nature," are among the characteristics that are least widely shared. Something similar can be said about human societies, some of whose ancient cultural elements are shared by virtually all (e.g., cooking with fire), while many newer inventions are not so widely shared. As a result, individuals and societies are neither essentially identical nor essentially different, since their old and new aspects tend to overlap with others to differing degrees.

Conclusion

Rather than arguing about whether individuals or societies are essentially the same or different, then, we could be concerned with how particular individuals may be helped to thrive and develop as a result of their experiences in forms of social life that are themselves being helped to thrive and develop. As Daniel Keating and colleagues put it, we might be concerned with the way "developmental health and the wealth of nations" are related to one another (Keating & Hertzman, 1999). Approached in this way, an evolutionary approach to psychology takes us back to the basic task of education without presupposing a correct answer before one begins.

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EXISTENTIALISM

See Beauvoir, Simone de; Sartre, Jean-Paul

EXPERIENTIAL LEARNING

It is hard to imagine an effective approach to learning that does not involve the learner in some kind of experience. The idea that knowledge, understanding, or skills could be passively absorbed is the antithesis of good teaching. This is especially true in modern approaches to education, where the goal is to actively engage students and help them to construct learning. Learners are not empty buckets or blank slates, and unless new ideas and new experiences link to previous experience, these ideas and experiences may lack meaning and context. However, if all learning is experiential, the use of the adjective "experiential" to distinguish one kind of learning from another is puzzling. The purpose of this entry is to explore this quandary and to identify the defining characteristics and contentious issues within experiential learning theory and practice.

The philosophy, principles, and practices of experiential learning permeate many diverse approaches to both formal and informal education. The development of philosophical thought about the importance of experience in learning settings has been linked to the Greek philosophers, but it is likely that the earliest humans used a version of "trial-and-error learning," especially as their capacities for reflection increased as cognitive functioning developed. In more recent times, the principles and philosophies of experiential learning underpin pedagogical approaches such as problem-based learning, inquiry-based learning, service learning, and adult education.

Although the terms *experiential learning* and *experiential education* are sometimes used interchangeably, this can be troublesome and the distinction is worth noting. On its website, the Association of Experiential Education (2013) defines experiential education as

> a philosophy that informs many methodologies in which educators purposefully engage with learners in direct experience and focused reflection in order to increase knowledge, develop skills, clarify values, and develop people's capacity to contribute to their communities.

According to this definition, experiential education uses the principles of experiential learning but what distinguishes experiential education is the transactive process between the educator and the student. Clearly, it is possible to engage in experiential learning without the presence or influence of an educator at all. This entry will focus mainly on experiential learning in educational settings and, hence, on the theory and practice of experiential education.

To better understand the educational potential of experiential education, it may help identify some of the defining characteristics of experiential learning. In doing so, I will draw on the foundational work of several theorists, including the well-known educational theorists John Dewey, Kurt Lewin, Paulo Freire, and David Kolb. The work of several recent authors will then be used to critique some of these original ideas and consider the place that experiential education may have in the future. First though, a brief look at the evolution of experiential learning is needed.

Dewey is often described as the father of experiential education, and he summarized his views in his book published in 1938 titled *Experience and Education*. Dewey was critical of traditional approaches to education that were static, and he argued that the educator's role is to provide opportunities to engage in purposive experiences, to help learners reflect on those experiences, and to help them build on past experiences, preconceptions, and knowledge. For Dewey, learning experiences needed to be enjoyable and interesting enough to keep the learner engaged. In his view, not all experiences were necessarily educative; some were potentially aimless or neutral activities, and some were even miseducative in that they diminished learning in the future. Dewey wrote that an educative experience should arouse curiosity, strengthen initiative, and set up desires and purposes that carry the individual over

"dead places in the future." In sum, "every experience is a moving force. Its value can be judged only on the ground of what it moves toward and into" (Dewey, 1938/1963, p. 38). Experiential learning was not just serendipitous learning for Dewey, he held that educators should use careful planning, develop extensive background knowledge, and be ready to teach subject matter when required. Being student centered did not mean that the educator relinquished his or her authority or responsibility to guide. A final point about Dewey's approach concerns the tension he noted between the individual freedoms of learners and their responsibilities as active members of democratic communities. For Dewey, neither aspect of this tension was optional.

Experiential education also finds its roots in the work of Kurt Hahn (the founder of Outward Bound) and Freire, because these educators were focused on developing the capacity of individuals to take action for participation in a democratic society. Freire, a Brazilian educator from the critical tradition, gave primary emphasis to praxis—the dialectal process of reflection informed by action and action informed by reflection. Inspired by the German American psychologist Lewin, Kolb adapted a Deweyian model to conceptualize experiential learning as a staged, cyclical process (see Figure 1), which ran as follows: A person engages in a *concrete experience*, and then reflects on this (*reflection*), makes generalizations
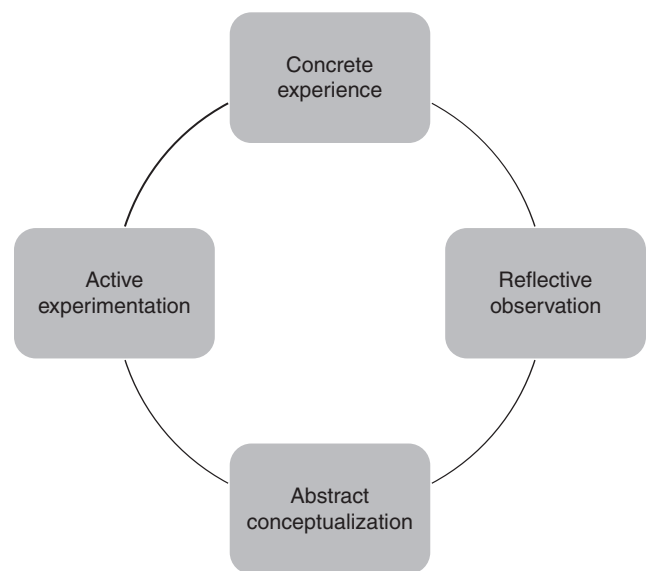
Figure 1   A Simplified Version of David Kolb's Experiential Learning Cycle

Source: Adapted from Kolb (1984).

from the reflections (*abstract conceptualizations*), and then thinks about how he or she might act differently next time (*active experimentation*), and applies these ideas to the next concrete experience.

Since the development of Kolb's model, many other authors have used different labels to describe the steps or introduced some additional steps, but the basic principles have remained unchanged. Kolb also used the stages in his model to describe different learning styles and ways of understanding or knowing things, but these are not pertinent to the discussion of experiential learning here. In more recent times, there has been strong criticism of the efficacy of such a cyclical model to adequately conceptualize the experiential learning process that Dewey had outlined. This along with other critiques will now be discussed.

Tara Fenwick sought to disrupt conventional notions of experiential learning in her book *Learning Through Experience: Troubling Orthodoxies and Intersecting Questions*, which was written for the adult education field. She encouraged more discussion about alternate conceptions by presenting critiques from constructivist, psychoanalytic, situative, critical cultural, and enactivist perspectives; and she explained how these different (and sometimes conflicting) perspectives provide a balanced view of the strengths and weaknesses of experiential learning. One of the key issues she raised was that some theorists and practitioners create a reflection–action (or mind–body and individual–context) binary. In practice, it is relatively easy for facilitators to avoid this binary by framing doing and reflecting as simultaneous, or overlapping, processes. Donald Schon's idea of reflection-in-action was a good example of how professionals may do this.

Fenwick also argued that traditional constructivist notions of experiential learning are simplistic and reductionist because they do not explain the role of desire in learning; they reinforce a conduit (input–output) understanding of learning; they falsely presume that subjects are divided from their environment and their experiences; they predominantly emphasize conscious, rational processes; and they assume a stable, unitary self. Fenwick encouraged practitioners to think more deeply about the processes involved in experiential learning.

More recently, Jayson Seaman has argued that stepwise experiential learning models inadequately explain the holistic nature of learning processes that are central to learning from experience and that they lack scientific and philosophical foundations. He suggested that an overreliance on cyclical experiential learning models may actually be influencing research and practice in unhelpful ways. The challenge is to make sure we do not limit our theorizing or repress both experiencing and learning processes.

Experiential learning has the potential to inform current and future pedagogies, but it is recommended that practitioners have a robust understanding of the theory and philosophy underpinning such practice to optimize learning outcomes and avoid experiences that may be miseducative. Finally, it is important to note that the teaching approaches used in experiential education are fundamentally different from those that may be suitable for traditional educational approaches. Consistent with the principles outlined by Dewey, a more facilitative teaching approach is required to allow students to become critical thinking, self-motivated, problem-solving individuals who participate actively in their communities.

Glyn Thomas

See also Dewey, John; Discovery Learning: Pros and Cons; Freire, Paulo: *Pedagogy of the Oppressed* and Critical Pedagogy; Problem-Based Learning; Project Method; Radical Constructivism: Ernst von Glasersfeld; Spectator Theory of Knowledge

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Experimental and Quasi-Experimental Designs for Research: Campbell and Stanley

The American psychologists Donald T. Campbell (1916–1996) and Julian C. Stanley (1918–2005) are widely considered pioneers in the study of educational research designs. Their work individually, together, and with colleagues has profoundly influenced the field of experimentation not only in education but also in social science research more broadly. In their 1963 monograph, *Experimental and Quasi-Experimental Designs for Generalized Causal Inference*, Campbell and Stanley provided a detailed specification of the conditions under which research studies could validly yield causal conclusions. Often referred to simply as "Campbell and Stanley," this brief but classic work stands even today as the most oft-cited source for educational research studies that employ some form of experimental design. This entry describes the monograph's methodological contribution and the Campbell and Stanley framework for research design.

Threats to Validity

Campbell and Stanley were primarily concerned with the degree to which a research study could be designed so that it would ultimately warrant the making of *valid* inferences—that is, inferences that could actually be supported by the evidence collected during the study. Campbell had previously identified two forms of such validity: (1) *internal validity*—the degree to which the outcomes observed subsequent to delivery of the intervention or treatment in fact did occur as a result of the intervention in the experiment, rather than as a result of other factors not systematically examined as part of the study; and (2) *external validity*—the degree to which the outcomes observed in the experiment at hand could generalize to individuals, settings, treatments, and measures other than those directly observed or sampled in the study.

Campbell and Stanley also identified several conditions that could reduce the likelihood that an experiment would support valid inferences—in their words, conditions that would threaten validity. These threats to validity, eight of which pertained to internal validity and four of which pertained to external validity, have provided a means for countless investigators to reduce the likelihood of carrying out the hard work of research studies only to find out afterward that evidence fails to support valid inferences.

Researchers use Campbell and Stanley's account of these threats to validity to make decisions during the research design stage to anticipate problems that could ultimately weaken the inferences that they could make; in other words, an experimental study could be designed to have features that would minimize threats that, given the prevailing circumstances, Campbell and Stanley had said were likely to occur. For example, Campbell and Stanley identify the effects of "History"—"the specific events occurring between the first and second measurement in addition to the experimental variable"—as one potential threat to internal validity (Campbell & Stanley, 1963, p. 5).

Consider an experiment crafted soon after the release of tablet (e.g., iPad) computers, to test the hypothesis that they will be an effective aid in second-language acquisition. Members of the group being studied are given iPads to use at school. But if iPads become very popular very quickly during the period of several months that the study is running, in many cases, the students will live in homes that purchase them; and as a result, the effect of the iPad use in class may be influenced by their access to the tablet computer at home, which the study is not designed to assess. This would represent a "history" threat—gains or losses in improved language performance might be attributed invalidly to the experimental treatment being a success or a failure whereas the results also are due to the events—the history of tablet computer use—taking place in the surrounding environment.

Campbell and Stanley laid out their full list of threats to validity as follows:

Threats to Internal Validity

1. *History*, the specific events occurring between the first and second measurement in addition to the experimental variable

2. *Maturation*, processes within the respondents operating as a function of the passage of time per se (not specific to the particular events), including growing older, growing hungrier, growing more tired, and so on

3. *Testing*, the effects of taking a test on the scores of a second testing

4. *Instrumentation*, in which changes in the calibration of a measuring instrument or changes in the observers or scorers used may produce changes in the obtained measurements

5. *Statistical regression*, operating where groups have been selected on the basis of their extreme scores

6. Biases resulting in differential *selection* of respondents for the comparison groups

7. *Experimental mortality*, or differential loss of respondents from the comparison groups

8. *Selection–maturation interaction*, and so on, which in certain of the multiple-group quasi-experimental designs . . . is confounded with, that is, might be mistaken for, the effect of the experimental variable

Threats to External Validity

9. The *reactive or interaction effect of testing*, in which a pretest might increase or decrease the respondent's sensitivity or responsiveness to the experimental variable and thus make the results obtained for a pretested population unrepresentative of the effects of the experimental variable for the unpretested universe from which the experimental respondents were selected

10. The interaction effects of selection biases and the experimental variable

11. *Reactive effects of experimental arrangements*, which would preclude generalization about the effect of the experimental variable on persons being exposed to it in nonexperimental settings

12. *Multiple-treatment interference*, likely to occur whenever multiple treatments are applied to the same respondents, because the effects of prior treatments are not usually erasable

Strategies for Mitigating Threats to Validity

Campbell and Stanley advocated three major strategies for mitigating validity threats. The first of these is use of a *control group*—an additional group selected by random assignment at the same time that the experimental group is formed; the control is treated in a similar way as possible to the treatment group except that it does not receive the treatment. (Use of a control group would have helped researchers deal with the "history threat to validity" described in the iPad example; students in both the treatment and control groups would be influenced by the historical events, allowing the researchers to take this effect into account when assessing their results, for only the experimental group used the iPads in second-language class.)

The second strategy was *randomization*, or random assignment of subjects to treatment/control groups. Random assignment leaves to chance the likelihood of systematic differences between groups (such as would constitute a *selection* threat). Finally, Campbell and Stanley also advocated use of a *pretest*, a measure of the target outcome that is administered before any experimental treatments have been carried out. A pretest helps determine whether groups were systematically different prior to the beginning of the study, which is especially important when randomization is not possible as part of a study. Another benefit of pretesting is the acquisition of knowledge about each subject prior to the study; when there is subject attrition prior to completion of the study, a pretest can give insight into the presence of an experimental mortality threat, for example.

Designs for Social Science Research

Campbell and Stanley were champions of the kinds of experiments first laid out in the 1920s and 1930s by Ronald Fisher. These experimental methods called for treatment conditions that were controlled enough to enable isolation of the effects of any individual treatment variable. They recognized, however, that educational research contexts often prohibit the sort of tight experimental control and manipulation of the methods described by Fisher. As such, though "true" experiments remained their first choice, they provided a typology of educational research studies that varied in the degree to which they would control for threats to validity. The four types of research designs identified by Campbell and Stanley are as follows:

- *Preexperimental designs*, which do not utilize adequate control groups and/or do not randomly assign subjects to treatment groups
- *True experimental designs*, which include at least one control group and employ random assignment of subjects to groups
- *Quasi-experimental designs*, which do not include random assignment but do employ an appropriate control group and gather evidence on the equivalence of that control group to the experimental group (e.g., through pretest measures)

- *Ex-post facto designs*, which explore relationships between variables but do not involve any degree of experimental manipulation

Across their four types of research designs, Campbell and Stanley also specified 16 prototypical research designs that varied in the use of the three strategies for mitigating validity threats described above (e.g., the "Pretest–Posttest Control Group" true experimental design).

Impact of Campbell and Stanley

For more than half a century, Campbell and Stanley's work has been helping researchers optimize their studies to mitigate threats to validity to the greatest extent possible, even in cases for which random assignment to equivalent groups is not feasible. Their legacy includes spawning a whole new field of modern techniques for causal inference using quasi-experimental designs. Their original work (updated in 2002 in a volume, the lead author of which was William Shadish), remains the definitive source for students and scholars of design of educational research studies. It needs to be noted, however, that during this same time period, there has been growing interest among some in the research community in the determination of causes using nonexperimental, qualitative methods, such as observational techniques. One tongue-in-cheek paper in a medical research journal pointed out that—despite the lack of experimental studies involving random assignment to the treatment and control groups—we know that parachutes are causally effective in preventing injury in individuals who are "gravitationally challenged" (Smith & Pell, 2003)!

Edward W. Wiley

See also Causation; Educational Research, Critiques of; Evaluation of Educational and Social Programs: Models; Evidence-Based Policy and Practice; Qualitative Versus Quantitative Methods and Beyond; Validity, Types of

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F

FACULTY PSYCHOLOGY AND MENTAL DISCIPLINE

Faculty psychology is the name given to an array of related theories about how the mind functions. These theories emerged in the Enlightenment philosophy of the 17th and 18th centuries and remained prevalent in theological and philosophical discourse and also educational practice throughout the 19th century. Theories of mental faculties sought to categorize the functions of mind and explain how these faculties were related to each other and how mental faculties made sense of the outside world. It is important to note, however, that the term *faculty psychology* only came into common usage in the early 20th century as scholars in the nascent discipline of psychology critiqued the theories of mind previously set forth by natural philosophers. This entry discusses how the terms *faculty* and *mental discipline* were used to describe how the mind works, how understanding occurs, and how these terms correspond to current ideas in psychology about mental functions.

In the 17th century, a faculty was understood as a mental ability or a mental power. John Locke's (1694) *Essay Concerning Human Understanding* was the most thorough discussion of mental faculties of that era. The question Locke was trying to answer was how we come to understand the world around us. While there are objects in the world such as chairs or horses, the mind possesses ideas about these objects. How do we form these ideas? Locke's approach to

this question was to consider the faculties required to form ideas. According to Locke, to form a simple idea about an observed object, the mind utilized a number of faculties. These faculties included a faculty of perception that formed an awareness of the impression received by the senses, a faculty of retention and memory that connected the new perception to earlier related perceptions, and a faculty of judgment that discerned diverse impressions of an object (say, from different angles or under different light conditions) and connected these diverse impressions with the same idea of what that object was.

Over the course of the 17th, 18th, and 19th centuries, the categorization of faculties varied among different scholars. However, certain assumptions about mental faculties remained prevalent. The first was that, through reasoning and self-reflection, it was possible to categorize what these faculties were. The second was that mental faculties formed and organized ideas. The third was that the mind was an inner entity separated from the outside world. The faculties functioned to bridge the gap between mind and world, although it should be noted that explanations as to how this gap was bridged differed among philosophers (e.g., David Hume, Locke, and Immanuel Kant). The fourth was a presupposition that people were capable of reflecting on their own ideas. This presupposition precluded the need to explain how people come to self-awareness and self-reflection in the first place.

Many formulations of mental faculties, including those of Locke and Jean-Jacques Rousseau, relied on empiricism. Empiricist formulations held that

mental faculties formed ideas solely through impressions provided by our five senses along with the impressions we have of our own thinking processes. Philosophers such as Christian Wolff created a distinction between empirical psychology and rational psychology. While empirical psychology depended on impressions, rational psychology provided the reasoned principles through which different ideas could be related to each other. According to Wolff, the faculty of reason nonetheless depended on premises and axioms derived from experience. However, not all discussions of mental faculties assumed empiricism. Kant argued that some forms of knowledge, such as knowledge of adding simple numbers, can be known without prior experience.

By the 19th century, the categorization of mental abilities in terms of faculties pervaded Christian theological discourse. As formal schooling became more widespread, these conceptions permeated educational theorizing as well. Throughout the 19th century, trainee teachers were instructed on how students should apply their mental faculties to make sense of the world. Students were expected to use their mental faculties to reflect on and take control of their own thinking processes and to connect ideas through rational principles. As many leading educators of the 19th century emphasized, learning was not a case of memorizing facts, but rather of understanding the principles through which related ideas were connected.

The learning process involved construing principles through which ideas could be generalized and applied. Students required effortful attention to derive principles by connecting particular words, mathematical operations, or features of objects. The attention and effort required to make use of principles were referred to as *mental discipline*. A paradigmatic example of mental discipline was learning arithmetic. In particular, arithmetic exercises were believed to demand strict mental discipline from the student as principled arithmetical operations were applied to particular numbers. Mental discipline, however, was not restricted to arithmetic. Just as principles pervaded all branches of knowledge, mental discipline was requisite in the learning of all branches (the learning of a classical language such as Latin was another paradigmatic case). By the middle of the 19th century, student recitation was the main way to practice mental discipline. Recitation did not involve the memorization of facts and texts or learning by rote but rather demanded that the student utilize his or her mental discipline to apply principled reasoning to a particular subject in the school curriculum. Some classroom practices were based on the further assumption that the faculties could be strengthened by use, in a manner analogous to the way in which one's muscles could be developed through exercise.

With the emergence of psychology as a formal discipline in the late 19th century, many of the scientific experiments in this nascent discipline were based on assumptions of mental faculties. Some studies of mental ability, for example, studied children's ability to recognize objects and connect ideas with objects. At the same time, establishing psychology as a scientific discipline involved developing new theories of mind and demonstrating how these theories were superior to preceding theories. With the rise of behaviorism in the early 20th century, faculty psychology was dismissed—it was argued that it provided nothing more than circular explanations; for example, the faculty of judgment only can be understood as the ability to judge.

Over the past century, there have been no substantive efforts to revive faculty psychology. However, some scholars have argued that faculty psychology was not so much refuted as integrated into the discipline of psychology where functions such as perception, memory, and attention are still treated as distinct mental functions. Moreover, a central assumption inherited from faculty psychology remains prevalent in many areas of psychology; namely, that the mind resides within the body and that psychology must explain how this inner mind makes sense of the external world.

Jake E. Stone

See also Behaviorism; Kant, Immanuel; Locke, John; Rousseau, Jean-Jacques; Transfer of Learning

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FEMINIST EPISTEMOLOGY

Feminist epistemology refers to a set of feminist theories within epistemology. Equally, it refers to a set of epistemologies within feminist theory. Both sets of theories are marked by complex and overlapping areas of agreement and disagreement. So there is no single "feminist epistemology"; there are a number of them. The entry begins by explaining what is included in the set of feminist epistemologies. It goes on to trace the emergence and development of different approaches. Then it outlines the main themes in current thinking in the area. Finally, it relates them to educational research, policy, and practice.

Feminists seek to demonstrate and dismantle the invisibility, oppression, and subordination of women; epistemology is the study of knowledge. Feminist epistemology is at the intersection of these two fields of endeavor. The orthodox Anglo-American position is that epistemology is the theory of knowledge, where knowledge is taken to be justified true belief. More generally, epistemology explores the relation between knowledge, belief, and truth. In the past 50 years, there have been sustained criticisms of this orientation by feminists and others. They broaden the scope of epistemology to include the study of what is known, what can be known, how it can be known, the knowing subject in an epistemic community, and how he/she/it contributes to the discovery, construction, or maintenance of knowledge. Significantly, these broader issues pertain to physics as much as to the social sciences and humanities (Barad, 1996).

The suggestion that epistemology can—or should—be feminist has not been universally welcomed by philosophers and theorists. Some remain outraged at the idea that feminism and gender have anything to do with epistemology, or indeed with philosophy, taking the view that these subjects address such abstract and general questions that politically partial forms of inquiry are irrelevant to them (see, e.g., Longino & Lennon, 1997; Martin, 1994, chap. 6). With reference to education theory, Siegel (2011) argues that if *epistemological diversity* refers, nonnormatively, to methodological diversity and diversity in belief within the research community, it is referring to an acceptable pluralism but is not an epistemological position; however, if it is taken to imply relativism (wherein truth is relative to a framework), it is not epistemically viable and should be rejected.

From a very different philosophical tradition, those working within a tradition critical of humanism would argue that any move to constructing an epistemology, including a feminist one, is misguided, although knowing and knowledge are discussed extensively in those critical traditions.

The relationship of feminist epistemology to standard epistemology is one of both critique and construct. It includes critiques of epistemologies that obscure the salience of gender and in doing so contribute to gender injustice; but it also constructs epistemologies that can reveal the operations of gender. Critiques of traditional gender-neutral epistemologies point up the biases and inaccuracies in knowledge that have arisen from implicit assumptions that the gender of the knowing subject and/or the subject of knowledge is irrelevant in the discovery or construction of knowledge. Moving on from critique, feminist philosophers construct epistemologies that take gender into account. They argue that feminist epistemology is productive of better knowledge that will not disadvantage women and girls.

For an epistemology to be feminist, it is both necessary and sufficient that it be capable of revealing gender *and* that it be normative with respect to gender injustice. Feminist epistemology aims to overcome injustice and so aims for better knowledge. Thus, it is not relativist, even though much feminist theory and philosophy shares in the current widespread flight from transcendence (there are procedures for rational assessment of knowledge claims). Moreover, as Longino and Lennon (1997) argue, feminist epistemologies are not necessarily (or even often) exclusively feminist—an epistemology that reveals that the operations of gender may equally reveal the operations of other material, social, or cultural formations such as social class, race, religion, culture, disability, and sexuality.

The Emergence and Development of Feminist Epistemology

Feminist epistemologies emerged during the early 1980s during a period of intense development and contestation in feminist theorizing. The different approaches developed in conversation with each other. Therefore, although they are analytically separable, they have areas of agreement as well as disagreement. A significant influence was the simultaneous emergence of political movements related to "race," ethnicity, social class, and sexuality.

Empiricism, Standpoints, and Situated Knowledge

One strand emerged from a critique of neutral, realist empiricism demonstrating that apparently neutral

empirical studies were biased, because, for example, they did not include females or assumed the universality of male experience. As a result, educational theory and practice advantaged boys and men rather than girls and women. The critique of neutrality evolved into the construction of standpoint epistemology, which held that since men as a more powerful social group understand less of the world than the less powerful social group of women, the latter perspective gives a richer, more adequate account of the world. This argument applies to other social groups as well, such as those marked by class, race, and ethnicity. So a number of different standpoint epistemologies were developed, drawing on Marxism, psychoanalysis, and postmodernism (Harding, 1986).

Other developments moved away from the notion of standpoint altogether. Rejecting the dualistic and hierarchical basis of standpoints, Haraway (1991) proposed the notion of situated knowledge, which requires engaging with "many kinds of heterogeneous accounts of the world" (p. 199). Drawing on Michel Foucault to theorize Black feminism, Collins (1991) used the term *subjugated knowledges.* Stanley has used the same term in her critiques of standpoint epistemology, in which she proposed an epistemology of the material that takes into account differences in the experience of material reality, highlighting circumstances, especially those productive of silencing and of subjugated knowledge. Narrative and autobiography/biography have been significant in all of these theories; they blur the subject and object distinctions, closely connecting the knower and the known. Code (1991) argued that the role of the social illuminates the inescapability of responsibility in epistemology. Some theorists continued to emphasize the primacy of gender as a category. Belenky, Clinchy, Goldberger, and Tarule (1986) argued that there are ways of knowing that are specifically female, which have been neglected and disparaged. The argument has been widely criticized for its essentialism and because, it is argued, the phrase "ways of knowing" is misleading and refers to ontology and metaphysics rather than to epistemology. Code (1991) argued that gender is always "a determining ingredient" in how far women's knowledge is accepted as trustworthy and authoritative.

Reason and Rationality

A second strand of critique focused on reason and discussed ways in which its apparent neutrality hid its gendering. Lloyd (1984) not only traced changes in the concept of reason over the centuries but also noted that it has always been defined by excluding the feminine, from the Pythagorean table of opposites to Immanuel Kant, G. W. F. Hegel, and Jean-Paul Sartre. Irigaray (1985) noted the same binaries at work but argued against exclusionary models, drawing on psychoanalytic and phenomenological concepts of the imaginary to argue that rationality in Western thought is conceptualized as male. Le Doeuff (1989) examined the discourse of philosophy analyzing the "domain of the image" in the philosophical writing of Plato, René Descartes, Kant, Jean-Jacques Rousseau, and Arthur Schopenhauer, among others, to demonstrate the gendering of reason in their work.

Braidotti (1991) argued against the project of constructing a feminist epistemology. She argued that Western philosophy is so imbued with a particular conception of reason, exclusive of women, that feminist attempts to reconstruct it were attempting to do no more than reform orthodox epistemology. Appreciative of Irigaray's project of "jamming the theoretical machinery" through mimesis and deconstruction, Braidotti proposed approaching questions of knowledge through a radical, nomadic, Deleuzian approach to philosophy as creative and formative rather than analytic and reactive.

Influential Themes in Current Thinking in Feminist Epistemology

Current thinking in feminist epistemology is as energetic and various as it was in the 1970s and 1980s. It is likely that the field will continue to develop at a rapid pace; this section outlines the main themes, but it should be read not as definitive but as indicating areas for further exploration. These explorations will overlap with mainstream philosophy, especially in the fields such as social and virtue epistemologies, epistemologies of ignorance, epistemologies of resistance, actor network theory, and posthumanism.

Clear links to standpoint, situated, and subjugated knowledge can be seen in more recent developments. In some formulations, it can be seen as a specific form of social epistemology. Longino argues for an epistemology based in feminist theoretical virtues: novelty, ontological heterogeneity, mutuality of interaction, and diffusion of power, which she contrasts with traditional cognitive virtues (Longino & Lennon, 1997). In the same article, Lennon accepts this but adds the requirement to pay particular attention to marginalized knowledge in a process of "world traveling." Cavarero (2002) draws on Hannah Arendt in her proposal that an epistemology

of the unique and particular, constructed through listening to multiple histories and perspectives, is appropriate for the study of human plural interaction and contingency: the *bios politikos* rather than the *bios theoretikos*. In a related move, Code (2006) discusses the politics of epistemic location. Some problems of epistemic location are highlighted in the epistemologies of ignorance, theoretically explored by feminists and theorists from other social groups (Fricker, 2007; Tuana & Sullivan, 2006).

Feminist epistemologies include not only the political but also the ethical. There are clear links here to virtue epistemology. The role of ethics is particularly clear in the discussions of ignorance and "world traveling," which argue for epistemic responsibility on the part of an epistemic community and individual knowers. Ethics are also relevant in relation to testimonial injustice, which can occur when the knowledge claims by members of marginalized social groups are given little authority. Feminists also argue that hermeneutical injustice arises when power relations constrain women's ability to understand their own experience (Fricker, 2007). In general, feminist epistemologies abandon what they argue is the pretense of objective observation; instead, the affective is fully acknowledged in the relation between the knowing subject or epistemic community and the known.

Feminist epistemology is still seen as a mistaken project by some feminist philosophers who would say that a feminist epistemology is a contradiction in terms, at best a strategic move toward dismantling the whole notion (Code, 1991)—or even just irrelevant (Tronto, 1993). From a poststructuralist and postmodern perspective, the imbrication of knowledge and power means that the humanist project of epistemology needs to be abandoned altogether, not merely reformed. Gatens (2000), like Braidotti, argues for the continuing significance of keeping gender visible while continuing to be skeptical about epistemology and what they argue are its foundational dichotomies, such as nature/culture. Drawing on Baruch Spinoza and Gilles Deleuze, they take a posthumanist turn to discuss knowledge rather than a theory of knowledge. Posthumanism is also significant in the work of Code (2006) and Barad (1996).

Relevance to Educational Research, Policy, and Practice

Feminist epistemology is relevant to educational research, policy, and practice. Suggestions about how it is relevant depend on the particular epistemology (or epistemologies) that is (are) espoused. Many of these are not uniquely feminist in the sense defined earlier in this entry. Moreover, since the field is fast-moving, scholars will, no doubt, find specific areas where it is particularly significant. Or, since there is plenty of controversy about whether any version (or none) should be espoused, some scholars may find they need to mount a defense or attack from new angles.

Educational research is one area that has long recognized claims for the significance of feminist epistemology, whether or not those claims have been upheld although these claims have not always been upheld. Particularly relevant in recent work are questions of the relation of the knowing subject or epistemic community to the known; narrative, plurality, and particularity; testimonial and hermeneutical injustice; and posthuman issues of agency. Epistemologies of ignorance point the way to new research areas and possibly to new methods (Code, Phillips, Ruitenberg, Siegel, & Stone, 2011).

Educational policy and practice are concerned with knowledge and ethics, so close attention ought to be paid to the epistemologies of ignorance and the importance of epistemological responsibility. Implications are clear, for instance, in areas of curriculum design and pedagogy. The concepts of world traveling, testimonial injustice, hermeneutic injustice, and cognitive authority are all significant in decisions about what to teach and how to do it. Although there is still little published theory and philosophy in relation to these areas, there is increasing interest.

Morwenna Griffiths

See also Epistemology, Multicultural; Feminist Standpoint Theory; Gender and Education; Knowledge, Analysis of; Postpositivism

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FEMINIST ETHICS

Feminist ethics aims to counter the traditional exclusion of women from participating in establishing the underlying assumptions, judgments, and emphases in the field of ethics. Women have not had a significant voice in discussing and questioning the presuppositions about who should make ethical decisions, about the kinds of reflection ethics should favor, or of the range of issues that can be considered to have ethical significance. This entry first describes the emergence of feminist ethics as a critical response to traditional masculine ethics and explores a selection of the diverse expressions of feminist ethics. It then considers how feminist ethics has influenced educational theory and practice, with reference to equality in education, curriculum and pedagogy, moral and citizenship education, relationships between school and family, and school ethos and leadership. Finally, it raises some ongoing critical disputes about and within feminist ethics.

Origins and Approaches to Ethics

Feminist ethics challenges a long history of doubt about whether women could reflect on and make decisions about ethical matters at all. From the 1980s, it emerged into the mainstream of philosophy, in line with growing academic attention to gender matters in various fields including education. Although traditional assumptions and issues in the history of ethics had been questioned by Mary Wollstonecraft, John Stuart Mill, and Simone de Beauvoir in the 18th, 19th, and 20th centuries, respectively, significant progress in establishing feminist ethics as a recognized endeavor became possible only in the wake of the activism of the women's liberation movement in the 1960s and 1970s. Feminist activists protested and resisted discrimination against women in the workplace and the home, raising issues that became worthy of academic attention; and feminist theory, especially in sociology and philosophy, started to address problems hitherto omitted from the ethics agenda. Feminist ethics changed the previously constituted focus of ethical theory by vociferously critiquing women's oppression and inequality and their assumed inferiority, challenging the conceptual bifurcation of public and private, and taking on aspects of social policy such as violence, sexuality, law and the family, employment and labor law, and women's agency,

development, health, and welfare. Not only had the experiences and concerns of women largely been ignored, but it also had been assumed that women lacked the necessary capacity—psychological and cognitive—for ethical reflection. Different virtues were expected of them: obedience, submissiveness, modesty, and caring.

The new feminist ethical engagements had implications not only for women but for all marginalized groups. Feminist ethics also differed in style from the traditionally argued texts of mainstream ethics, drawing in more wide-ranging forms of discourse including the novel, poetry, and autobiography. Criticizing the preoccupation of traditional ethics in the dominant Kantian tradition, with its rationally derived, supposedly disinterested judgments by autonomous individuals, feminist ethicists objected to the assumption that the ethical subject was a reasoning male who engaged in reflection about principles to be universally and impartially applied.

Challenging what feminists identified as masculine values and the exclusion of the body, emotions, and, particularity, key features of feminist ethics fall into four overlapping categories. First, it rejects the underlying assumptions and central concepts of traditional Western ethics that had ignored women's experience and reflected a profound gender bias. Second, feminist ethics rejects the subordination of women and is determined to foster their agency as well as gender equity. Third, it develops an alternative perspective in ethical theory that is informed by a revised conception of personhood. Fourth, it offers a feminist treatment of a different set of key ethical issues, realized by an expanded set of conceptual tools more suited to the task of ethical reflection and choice.

Yet in marking out these key differences, feminist theorists have adopted diverse approaches. For Marxist feminists, the central problem is the class system, in which women's domestic labor is exploited in the reproduction of children and also in ensuring the availability of men's labor outside the home. The priority for lesbian feminist ethics is resistance to oppression and domination, taking as paradigmatic caring relations among lesbians rather than between mother and child; in these relationships, there is reluctance to impose one's own conception of the good on others, and ethical choices are made in a shared context of resisting domination. From the perspective of radical feminist ethics, women need to take control of their own desires and reproductive powers, resisting compulsory

heterosexuality. Stressing the need to de-essentialize, poststructural feminists critique the binary categories of gender and sex, arguing that we can only begin to understand the oppression of women by appreciating multiple explanations and the fluid social and cultural constructions of sex, gender, and sexuality. Emphasizing power, discursive constructions, and the necessary impermanence of understandings, some poststructural feminists see identity and gender as performances that change over time and under different circumstances. At least implicitly, all feminist ethicists raise key questions around gender as a social construct versus sex differences as innate and natural.

Justice and Care

A defining development in feminist ethics has been its critique of John Rawls's theory of social justice, the authoritative 20th-century work in liberal, ethical, and political theory. His theory describes basic features of a just society and the principles that regulate the lives and opportunities of its members, the distribution of goods and positions of power, and the terms of cooperation. Rawls proposes liberal principles that would be endorsed by free, equal, and rational persons: moral equality, respect for individual rights, and a fair distribution of both the burdens and the benefits of social and economic goods. The device of the hypothetical veil of ignorance famously presents his procedure for arriving at fair principles of justice by positing a thought experiment that involves blocking off knowledge about personal factors such as one's abilities and economic position. Participants in an imagined "original position" do not know what social role they would be occupying nor what interests and talents they would have (or lack) and so, presumably, would not support unfair social arrangements when deliberating about the nature of a just society. This procedure, Rawls posits, would lead to two principles of justice being accepted: (1) equal liberty for all and (2) fair equality of opportunity, with inequalities permitted only if these were for the benefit of all citizens.

Standard feminist criticisms of Rawls's ethics, and of the European Enlightenment tradition he is seen to represent, question the emphasis on reason, autonomy, and the independent individual as a bearer of rights who is devising and applying just principles impartially to all. Critics have been quick to point out that far from being equal, free, and independent, real ethical subjects are social beings

who are defined by interdependence with others and who are dependent for significant parts of their lives on the care of others. As an alternative to an ethics of justice, the feminist ethics of care places particular value on caring relations. Drawing frequently on the example of care between mothers and children, an ethics of care will be premised on trust, responsiveness to needs, cooperation, and reciprocity and will include attention to the role of emotions in understanding moral issues and moral decisions.

Critical of the abstract universalist emphasis on the rational individual, the moral psychologist Carol Gilligan offered one such alternative moral theory, claiming that men and women speak from and are driven by different moral standpoints, namely, the justice and the care perspectives, respectively. While keen to resist the assumption that the voice of care is, necessarily, the voice of women, Gilligan's work nonetheless suggests the existence of gendered difference, ascribing more connected, relational, caring roles to girls and more justice-oriented roles for boys. The moral development of boys will be more rational, more logical, and focused on making decisions on the basis of principles of justice, while girls will more likely attend to relational thinking and care, mirroring relationships with their mothers. Although her work remains controversial for many feminists, including those concerned that most of her subjects were White and middle class, Gilligan's contribution to the development of feminist ethics was significant: No longer could girls and women be omitted from developmental and moral psychology. Importantly, too, Gilligan encouraged a much greater focus on caring, for both men and women.

While a number of feminists regard caring as an ethical issue, Nel Noddings, arguably the best-known care ethicist among educators, insists that care and justice are distinct. Noddings's relational theory of care is premised on paired relationships in which care is at best natural, with "ethical caring" occurring only when a carer feels obliged to offer care. Clear that her theory of care, influenced by Gilligan's work, is neither comprehensive nor universal, Noddings holds moral decisions to be partial and located predominantly in the private domain with moral principles unnecessary. For some feminist ethicists, this raises the question of how we are to ensure that care is morally appropriate and that our circles of concern can transcend the immediate and partial. With respect to some accounts of care, feminist critics have also asked how women are to avoid the stereotypical trap of assuming the bulk of the responsibility for care in both the private and more public spheres of work. Care, wherever it occurs, is arguably an ethical issue demanding moral appropriateness and decisions based on a conception of the social good resulting in care that is both implicated in and can realize justice, and in care that is less gendered, less often the prerogative of women.

In education today, women are still often expected to be responsible for care and nurture. In the early years of schooling especially, women may take on roles more akin to traditional "mothering" than those most obviously attributed to educators. Do women accept such roles simply because they have, for the most part, been mothered, or because they are "naturally" predisposed toward nurturing, empathetic, close relationships, as the work of some early care theorists might suggest? On some accounts, women reproduce the caring they have received, understanding and "feeling" the needs of others, while men are more likely to see themselves as different and separate from their mothers and their "feminine" behaviors and capacities. On such views, the reproducing of motherhood might sustain the hegemony in which women are oppressed by expectations that they will assume caring roles while men are free to pursue careers. Accordingly, the ethics of care has been the subject of critique from feminists determined to counter understandings of care that can trap women into self-sacrificing disregard of their own interests and open them to exploitation and even abuse as the needs of others are given priority.

Feminist Ethics in Education

Feminist ethics in education pays particular attention to equal access to education through the just distribution of resources and to participation in historically male-dominated subjects like science, and it offers a critique of gendered curricula, including the hidden curriculum. With respect to moral education and citizenship, regardless of sex, it holds that citizens are to engage in rational deliberation between competing claims and opinions, are to be caring and are to be allowed a voice. The ethics of care has been extended to relations with others beyond the immediate and intimate, to the environment, and to distant others.

In a world now connected by neoliberal globalization in an integrated economy that favors the interests of the rich and powerful, the poorer underdeveloped regions are now locked into postcolonial

dependency. Global justice requires redistribution of goods and agency and that the less powerful who are excluded from making decisions with global consequences be given a voice. Some proponents of the ethics of care would observe that a justice-based ethics is not enough to prompt action to address global inequality and Third World poverty and that the ethics of care must be extended to distant others. If citizenship ethics is now informed by a notion of global citizenship, the extension of feminist ethics to the global context further illustrates how both care and justice have a part to play in recasting all ethical domains. Both care and justice offer instructive means for feminists to address contemporary ethical challenges in which there might be a shift from power relations between sovereign states and their citizens, often executed by war in what feminist critics of traditional international relations would interpret as a masculine intervention of the state and its citizens in competition with other nation-states.

School and Family

In liberal feminist ethics, the home is a legitimate focus of critique. While Rawls treats the home as the first school of moral education, what children learn in this school became a focus of feminist critique, as did Rawls's assumption that the "head" of the family would be a man. Feminist ethicists question the often inequitable domestic division of labor and the "natural," frequently implicit, authority of men over women in the family. Contrary to assertions that the family must necessarily be a good, healthy, and just institution, feminists have pointed to the family as being a site where both the reproduction of gendered inequalities across generations occurs, and where sex-based abuse—physical and psychological—may occur largely unnoticed. Feminist ethicists point out that attention to the family and calls for a return to "family values" frequently fail to attend to the diversity of the family today. There is also ongoing controversy about whether cultural practices regarding early or arranged marriage should be respected or whether critical thinking taught in the school should extend to such matters in liberal democracies. While Noddings extends care ethics from the home to public policy, other feminist ethicists see a role for the state in establishing the legal definition of the family and associated rights and responsibilities, and some feminists advocate a stronger role for schools in "undoing" the gendered assumptions and attitudes that may have been fostered in families.

School Ethos and Leadership

The tendency for men to dominate in positions of leadership in educational institutions is a further issue of concern for feminist ethics, not least with respect to ways in which such domination perpetuates a deeply gendered organizational culture and ethos in which women are relegated to lower echelons of the teaching profession. There appears to be a continuing assumption that while women are effective in subordinate roles, especially caring for young children, they may be less suited to and lack the necessary attributes for leadership. If, for whatever reason, women do have different ways of being and doing, the ethos and organization of schools might change for the better if they could both reflect and capitalize on women's talents. Leadership more effectively directed toward values central to feminist ethics might result in greater attention to things such as caring, relationships, more inclusive and democratic practices, and emancipation for staff. Feminist ethics offers resources for critiquing leadership practices and their effects on the ethos of the school while also providing the tools for subverting neoliberal policies and their resultant pressures on curriculum and pedagogy.

Feminist Pedagogy

Feminist pedagogy offers further opportunities to realize schools that can be both more caring and more powerful sites of struggle against the reproduction of hegemonic gendered practices. Curricula, on a feminist approach, will attend to issues of oppression and injustice across all sectors of society, including those affecting all women, while feminist pedagogy will disrupt the gendered status quo by revealing and disturbing traditional power structures and practices. It will give voice and autonomy to girls and women, thereby opening up opportunities for learning and for careers that are gender neutral, based not on one's sex but on what one is able to do and to be.

Current Controversies

Nature Versus Nurture?

Recent research in neuroscience on sex similarities and differences has reignited the controversy over the importance of nature versus nurture, and feminist ethicists have warned of the dangers of what has been termed *neurosexism*. They emphasize that the plasticity of the brain and its capacity

to respond to the environment is perhaps more important than ever, if feminists are to avoid a new master narrative of essentialism and, from whatever ethical perspective, to resist a return to a deterministic acceptance of gendered difference. Cordelia Fine has identified issues in the research itself and examined implications for educational policy and practice.

Justice Versus Care?

While some might assume that care and justice are mutually exclusive orientations, the range of ethical issues that feminists have identified in education can fruitfully draw on both. Liberal feminism has taken plausible steps to adjust the ethics of justice to accommodate the feminist critique of its traditional and Rawlsian expressions. So, for example, Martha Nussbaum's "capabilities approach" attends to both justice and care, building from—but critical of—some key elements of Rawls's account of justice. She is uneasy with the basic goods that Rawls identifies for just distribution, such as income, wealth, and position in society. She also finds that the free and equal parties in Rawls's original position do not take human diversity sufficiently into account, proffering instead a conception of persons that acknowledges that they are dependent on the care of others for at least part of their life span. Her account of social justice supports strategies to change institutions, including the family, to address women's place and the comprehensive doctrines that underpin the traditional views. She is critical of any approach to feminist ethics that supports, even implicitly, uneven power relationships such as one might witness in the family. Women should be treated as individuals of equal value and dignity, whatever their circumstances. Thus, Nussbaum's capabilities approach is focused on what all people are able to do and to be. A list of 10 central capabilities represents Nussbaum's response to questions about what is required to enable all to live a life with dignity. Importantly, Nussbaum's capabilities approach is premised on a construct of personhood in which all people are ends not means, and according to which, women may not be treated as means to the ends, to the plans and goals, of others. Such an approach has obvious implications for the equity of women's opportunities and their roles, duties, rights, and entitlements in social institutions such as families, schools, and places of employment. Nussbaum insists that it is unjust for women to be primary caregivers if providing care deprives them of any of the 10 central capabilities; it is the role of a good society to provide care for those who need it without exploiting women.

Feminist Ethics: A Colonial Discourse?

Like feminist theory in general, feminist ethics is vulnerable to the criticism that it is written mainly by Western, White, middle-class academics who succumb to precisely what they object to in traditional male-dominated ethics. Indulging unwittingly in race, class, and cultural bias, they mistakenly impose their own experiences and assumptions on working-class, Black and Chicana, aboriginal, Muslim, and other women in developing countries. Their critique of cultural practices in dress and in sexual and marital practices that they see as oppressive depicts women in these societies as voiceless, uneducated victims controlled by their men and in need of emancipation from tradition. Such alleged hypocrisy is compounded, moreover, by the material benefits that Western women derive from a global economy that has been especially destructive for Third World women's livelihoods and agency.

This critique of mainstream feminist ethics insists that the voices of women outside Europe and North America be recognized. These women have a principled and strategic need to develop an ethical discourse in their own context, safe from critique from outside hegemonies. Western feminists should avoid the temptation to speak on behalf of other women, failing to hear their voices. Instead, they need to attend to finding nonpatronizing ways to learn from them, in a manner that is inclusive, equal, and respectful.

Globalization in an integrated world economy has brought women from materially privileged and from developing countries into forms of association that demand an ethical response. Third World debt, unfair rules of international trade, and vast inequalities in access to educational opportunities help maintain the competitive dominance of the most developed economies. There is a danger of not acting on global injustices consequent on colonialism and neocolonialism for fear of inadvertently speaking on behalf of others. Insulating closed communities from all forms of critique may protect local patriarchies as well as global capital. Moreover, it might even discourage dissent from women in developing countries, who should not be treated as members of closed epistemic and ethical communities incapable

of engagement across difference. The terms of such engagement and possibilities for a global feminist ethics are still under negotiation.

Penny Enslin and Nicki Hedge

See also Colonialism and Postcolonial Theory; Gender and Education; Hidden Curriculum; Kant, Immanuel; Moral Development: Lawrence Kohlberg and Carol Gilligan; Moral Education; Neurosciences and Learning; Noddings, Nel; Rawls, John

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Feminist Standpoint Theory

Feminist standpoint theory emphasizes that women and men typically have different social positions and experiences. Women are, by and large, underprivileged relative to men and experience reality through work in ways men often do not. This can give women an epistemic advantage; they can know some things in a better or deeper way than

men can. The advantage is potential and has to be realized through learning or consciousness-raising groups where women meet to discuss their experiences. This has important implications for education. Significant epistemic differences (grounded in significant social differences) call for different methods of learning. Women should be educated in ways suited to their potential that allow it to be realized as advantaged knowledge. Furthermore, as emphasized by Sandra Harding, standpoint theory implies that we should focus on the experiences of women and other underprivileged or marginalized groups as a source of knowledge and understanding; there is much to learn from them. This entry follows the development of feminist standpoint theory and explains its main characteristics and the criticism raised against it in feminist scholarship.

Early accounts of feminist standpoint theory (e.g., Dorothy Smith's and Nancy Hartsock's) were pronouncedly influenced by Marxist accounts, according to which the working class has the potential to understand the social and economic reality more reliably than does the exploiting bourgeoisie. The bourgeoisie's interest in suppressing the truth about how it exploits workers hinders its ability to conceive the social reality as it truly is. The working class, in contrast, has an interest to see the exploitative social reality for what it is so that it can be brought to an end. Moreover, the working class has greater potential to conceive the social reality accurately because it experiences firsthand its dire aspects. The working class is epistemically advantaged also through its potential to develop a "dual vision": Because of the dominance of the bourgeoisie, its ideology is known also by the working class, which, therefore, is familiar with both its own and the bourgeois understandings of reality. The bourgeoisie, however, has access only to its own point of view. But workers have only the *potential* to enjoy their epistemic advantage. Many suffer from false consciousness as they internalize the bourgeois ideology and values and, thus, do not comprehend their exploitation for what it is but deem it deserved and just. Advantaged knowledge often has to be attained through education and effort.

Feminist standpoint theory, especially in its earlier stages, drew largely from this model but replaced the Marxist class division with a feminist gendered division of labor. Like the working class, women experience many of the material aspects of the world. Women do so through housework and child rearing, in ways that men do not. Women have

the motivation to notice the unjust sexism in the social reality that men have an interest to ignore. And women, too, have the dual vision (which early feminist discourse sometimes called "bifurcated consciousness") of both their own and men's conceptions of reality. As in Marxist theory, in feminist standpoint theory as well, mere group membership is insufficient for enjoying the advantage. Since many women suffer from false consciousness that leads them to accept their underprivileged condition as good and just, attaining advantaged knowledge requires education.

Marxist thought considers the relation between the working class and the bourgeoisie as the most basic and important one in the modern era. It downplays the other types of oppression from which workers suffer (e.g., national, racial, or colonialist oppression) and takes the latter to be less significant or largely based on the primary one. Similarly, early feminist standpoint theory focused on women's oppression as a basic phenomenon and tended to downplay other types of oppression from which women suffer or to see them as mere variations on women's oppression. Later feminist standpoint theories, however, have emphasized also these other types of oppression. Patricia Hill Collins, for example, has argued that Black women's experiences and White women's experiences differ in important ways and, thus, that Black and White feminists have significantly different standpoints. Collins's analysis implies that the differences between White and Black standpoints may be as important as those between women's and men's standpoints. In some ways, Black women and men may have more in common than Black and White women. This, of course, has been claimed also for other underprivileged groups. It has been suggested that several axes of oppression can intersect in every person. A person may be oppressed in some ways (e.g., as a woman) while an oppressor in others (e.g., as a wealthy, Western White person). Thus, standpoints have come to be understood as complex, encompassing many social positions that may inform one's epistemic positions in a variety of ways.

It has been argued that such analyses develop feminist standpoint theory in some ways but undermine it in others. These analyses suggest that there are many types of oppression and that women's oppression is no more important than others (e.g., oppression of Blacks, Hispanics, or the poor). But this runs counter to the notion that there is a relatively united, homogeneous women's perspective, with only some minor variations (between, say, White, Black, Hispanic, and poor feminists). Thus, under these analyses, women's standpoint emerges as highly fragmented, to the extent that it is no longer clear that it makes any sense to talk of women's standpoint at all or to see it as a focal standpoint that enables advantaged knowledge of many issues, as the working-class's standpoint is considered in Marxist theory. Indeed, many postmodernist feminists have completely rejected the notion of a feminist standpoint, emphasizing, instead, myriad changing positions in each person. To cope with this problem, feminist standpoint theorists have had to argue that women's oppression is somehow more important or severe than other oppressions. But many feminist standpoint theorists have been reluctant to make this move, while many Black, Hispanic, and other feminists are unambiguous in their rejection of it.

Some feminist authors have voiced other criticisms of feminist standpoint theory. Bat-Ami Bar On, for example, has argued that since the theory found women's epistemic advantage on their oppression, it forces women to choose between continuing to have accurate knowledge and ending their oppression. Sylvia Walby has claimed that founding epistemic perspectives on different social economic positions raises questions about the possibility of sharing knowledge. The more people's knowledge is taken to be based on their different economic and social positions (rather than, say, on interaction or education), the more unclear it is how people succeed in sharing or communicating knowledge. Yet knowledge is frequently and successfully shared and communicated.

Another line of criticism acknowledges that women's experiences in childbearing, child rearing, housework, and certain other activities may endow them with advantaged knowledge in these specific spheres. Likewise, women's oppression may allow them a deeper understanding of sexism in society and of other types of oppression. But critics suggest that it is problematic to extrapolate from an epistemic advantage as regards these specific issues to an epistemic advantage as regards other issues or an epistemic advantage at large. Yet another criticism emphasizes false consciousness. Many—perhaps most—oppressed women in the world endorse sexist views, such as that wives should obey their husbands or that immodestly dressed women "deserve" to be raped. Uprooting such views has proven to be very difficult and raises the question of

whether the oppressed position is not epistemically disadvantageous rather than advantageous.

Sandra Harding, probably the most prolific writer on feminist standpoint, has described it as the most controversial feminist epistemological view. Indeed, it has been criticized more than any other feminist epistemological theory. Many feminist theorists, however, still espouse it, presenting, over time, and under pressure of criticism, progressively more moderate and, thus, also more defensible versions of the theory. These newer accounts have significantly distanced themselves from their Marxist roots (which often remain unmentioned) and present the feminist standpoint as less unified and central and as endowing more modest epistemic advantages than earlier theories held. Critics suggest that these modified versions of standpoint theory are less vulnerable to criticism than their more radical predecessors but, at the same time, render the standpoint less significant and of fewer practical and educational implications.

Iddo Landau

See also Epistemology, Multicultural; Feminist Epistemology; Feminist Ethics; Gender and Education; Moral Development: Lawrence Kohlberg and Carol Gilligan; Postmodernism

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Foucault, Michel

Michel Foucault (1926–1984) is among the most widely cited 20th-century theorists in educational research. His most important contribution to this field has been in providing the resources for a sustained critique of the educational endeavor. Due to the scope of his work—which extends well beyond educational matters—and the radical consequences of his critical perspective, Foucault's ideas are typically difficult to apply. To fully appreciate the insights Foucault has to offer, it is important to situate this work within his wider critique of the present.

Tone and Scope

Discipline and Punish, one of Foucault's most famous books, contains a statement that indicates the tone and scope of his critical venture: With the rise of modernity, according to Foucault, the soul became the prison of the body. This modern soul has no vital or inextinguishable essence, but it is no illusion either. Unlike the soul of Christian theology, it was not born in sin but was born from methods of punishment, supervision, and constraint. It was a material product created through multiple techniques, extending across sites including the newly developed institutions of mass education.

The consequence of this claim is to make freedom—a political project based on securing and protecting individual selves from the effects of dominant power—inherently problematic. For Foucault, the modern men, women, and children that 19th-century campaigners, politicians, and bureaucrats would seek to free, were already conditioned by forces much greater than themselves as the instruments of a wider political economy. Their souls, made from the resources of the institutions that had schooled them, were already limited constructs, devised to suit the needs of government in the form of responsible and docile subjects. This, Foucault argues, is the dark underside of Western modernity, which through its commitments to liberalism and democracy would secure education and votes for all. Those newly established liberties were underwritten by multiple techniques that would instruct citizens to use their freedoms "appropriately."

These are monumental claims. Many other similarly iconoclastic statements may be found in Foucault's work, which ranges from histories of madness, medicine, and prisons, to the workings of power, knowledge, government, and subjectivity. Foucault was, nevertheless, a meticulous and canny thinker, careful to avoid grand theories and epic claims. He preferred to look from the "bottom up," believing that dispassionate work, work that appears to view its subjects from above, or even from the outside, is impossible. This led him at times to appear noncommittal, unwilling to declare his political and philosophical allegiances. Foucault's work is often

doggedly and sometimes frustratingly descriptive, making it difficult to work out what Foucault was seeking to achieve in political terms. While his political commitments were strong—indeed Foucault was no stranger to protest, direct action, arrest, deportation, and even police brutality—Foucault has been criticized for refusing to declare what exactly he was arguing for or what values guided his work.

The reason for these refusals was Foucault's suspicion of those very values and what they were based on. In particular, he suspected that the human subject, in whose interests ethical systems are often justified, is always a local construction. There is no universal human subject of history in whose name we could speak. Foucault was able to show that many features of contemporary life are locally contingent, especially those features that we most take for granted. They have histories and thus, in principle at least, are open to change. Grander illusions, such as the presumed freedoms that modern education helped establish, are broken apart according to their histories. These "genealogies," as Foucault was known to call them, often muddy the origins of our most resplendent ideals by situating these ideals within the banal transformations of everyday conduct from which they emerged. Here, and in many other respects, Foucault aligned himself with the thinking of Friedrich Nietzsche, who argued that morality itself is just another social construct. The history of morality, like any other history, is marked by turbulence. Moral meanings change through unexpected reversals; there is no internal or developmental consistency to the history of morality. Often, the agent of change is trivial in appearance to be located in some minor adjustment or other that has taken place in personal or social conduct. For Foucault, histories are seldom grand or progressive; they are gray and turbid.

Power and Confession

In educational research, Foucault's work on power has been particularly influential. Here great care must be taken to avoid misunderstanding. Foucault emphasized the productivity of power, its generative potential. He was careful to avoid a repressive hypothesis where in education one might identify techniques as "bad" because they appear to limit the freedom of the student. Highly mechanistic devices such as examinations or tests are frequently placed in this category. It is tempting to identify the most severe of these as devices that trample the interior of the child and, therefore, conclude that they have no place in an educational context. Foucault would be more cautious (though, typically, thinking in a way that would be likely to outrage conventional understanding) in suggesting that these techniques may be central to the educational endeavor.

Educational techniques such as those developed by 19th-century schools (the first institutions of mass schooling) were able to shape individuality in such a way that those concerned were isolated from one another but open to the influence of government. Practices of division and exclusion (where the student is divided within, or divided from others) were combined with techniques that would enable the individual to turn himself or herself into a subject, techniques that would enable one to recognize externally defined traits within the self and then act on them. As a material reality, the modern soul constructed here depends on a terrain of concepts within which it can be determined. It relies on external categories ranging from more general ideas—psyche, subjectivity, personality, consciousness—to more child-specific notions: the troubled child, the child of promise, the borderline child, the resilient child, and so on. The child's interior, in other words, was the product of external ideas and systems for locating those ideas within the self, which, in turn, influenced how that self was formed. Foucault's interest was to identify the material practices through which this occurred.

In educational contexts, these material practices can be very intimate. Relations between teachers and students are sometimes close, where the latter are encouraged to confide in the former. Foucault explored these relations under the general rubric of "pastoral power," focusing in particular on confessional practices, where students may be encouraged to reveal and explore their inner thoughts and feelings. This might occur during periods of pastoral care or through a whole-class task as basic as a reflective diary, where students are asked to explore the events of a weekend just gone by. Foucault argued that the obligation to confess, to reflect openly on one's inner being, has become so deeply ingrained that we no longer see it as the effect of a power that constrains us. It seems as though the "truth" that is lodged within only needs to surface and that if it fails to do so, some sort of constraint, or inhibition, is to be blamed for holding it in place and weighing it down. It is presumed, in other words, that confession frees, while "power" forces one to remain silent. This, Foucault suggested, is the

"ruse of confession." His point was to argue that power functions in the opposite direction, instructing individuals to produce truths about themselves and rendering silence awkward. In educational contexts, students must learn to reflect on their "inner" selves using approved techniques and categories. The cumulative effect of observations like these is to raise the suspicion that educational relationships are never innocent; they are built from synthetic devices that have carefully fabricated effects. It is significant that the techniques described here are those associated with progressive education, thus indicating that no pedagogy is purely benign, that no pedagogy can claim to be above the stratagems of power. From this perspective, and taken as a whole, education becomes nothing less than a great artifice. Little that is "natural" or without consequence remains.

Theory and Strategy

Foucault was a subversive thinker who set about challenging conventions. It is often assumed, for example, that knowledge arrives once power departs. If power remains, so the argument goes, its effects may contaminate knowledge. Foucault sought to show how the two are intimately linked: The human sciences were born from observations, and these required human samples. Social groups such as children formed ideal test subjects. They were already in the required form of measurable samples, having been temporarily held captive by the school. For the past two centuries at least, as children and then as adults, we have been examined at multiple sites. This has led to an overall inversion of visibility thanks to which previously ignored, unknown, and marginalized groups as well as more general but minor phenomena have been brought to prominence. The production of knowledge once prioritized the powered elite whose biographies were the only ones worth telling. Now the minor historical actors, their traits and biographies, have been opened up to inspection. Either directly visible through forms of optical surveillance or indirectly visible by means of the data trail that is left when passing through various agencies and institutions, the individual is captured within an array of documents and becomes accessible thereby to the influence of power.

From this perspective, power cannot corrupt knowledge because knowledge is already the product of power and is tied up within its operations. The overall effect is to deny exemption to any form of knowledge or any science that claims the right to truth. Everything becomes subject to skeptical inquiry. The assumption here, which takes the form of a basic strategic–analytic choice, is to presume that everything is dangerous, for power is everywhere. This founding critical stance encourages the educational theorist to engage in a radical critique, targeting in particular those aspects of the educational endeavor that are seen as natural, or unproblematic, and have as a result been allowed to remain unchallenged.

According to its dispersal, power is never entirely located in powerful institutions. It is never totally possessed as if it could be accumulated and concentrated, as if it could be brought to one place so as to be absent elsewhere. Equally, it would be a mistake to assume that power is governed by a single organizing principle and to argue that an instance of power represents the wider interests of capital, patriarchy, or the state. These are displacements, Foucault argues, by which we evade the real question of power in all its complex detail.

The difficulty with this position is that it implies the impossibility of denouncing power from the outside, simply because power is everywhere. Here Foucault adopted the stance of a hyperactive pessimist, suggesting that critique is at its most productive when it remains alert, avoiding the temptation (and potential satisfaction) of standing back to offer a global analysis, and then condemn. Foucault suspected the global analysis of perpetuating an illusion of truth that would have damaging effects: Political action that is based on a single global diagnosis of power will almost inevitably reinvest some of the power mechanisms that are to be overthrown. Here, Foucault was particularly critical of revolutionary activities guided by a Marxist analysis of state power. He claimed that socialist states reproduced in different guises the cruelties and inequities they sought to destroy. Radical, emancipatory theory had failed to anticipate these outcomes because of its tendency to reduce the complexities of power to simplistic relations of domination and exploitation.

Against this tendency to blindness concerning power, Foucault argued for a profusion of gray, meticulous, and patiently constructed inquiries into the multiple effects and modes of functioning that power takes. Educational researchers who seek to adopt Foucault's theoretical framework are challenged to avoid passing judgment in their critique, which would be based on a normative ideal of the purpose of education. This antinormative injunction

will presumably enable researchers to interrogate educational concerns with greater caution and more critical insight.

It is worth remembering, however, that Foucault's invitation to exercise caution in analysis was not symptomatic of his preference for academic reserve. That was not his affliction. Rather, Foucault believed that a transformation in analytic techniques of the sort he promoted should be accompanied by experiments involving new forms of political conduct to which the insights gained through critique could be related. His was a radical project, sensitizing readers to the multiple effects of power and exploring the contingencies of government and subjectivity. Foucault promoted a form of intellectual labor that was never to be separated or abstracted from political praxis.

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See also Critical Theory; Liberalism; Neoliberalism; Nietzsche, Friedrich; Postmodernism

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FREIRE, PAULO: *PEDAGOGY OF THE OPPRESSED* AND CRITICAL PEDAGOGY

Paulo Freire (1921–1997) was a Brazilian philosopher of education whose theory of education as a practice of freedom claimed that to realize their deepest possibilities as human beings, people needed to intentionally shape history and culture even as they were being shaped by that very history and culture.

This historicity and the reflective action (praxis), the labor through which it becomes embodied, constitute the primordial capacities for free action. The nurturing of those capacities marks the foundational task of a humanizing or liberatory education.

Freire argued that oppression occurs when social, economic, political, and ideological structures undermine or prevent certain people or groups of people from enacting their basic human need to be free in order to shape the history and culture within which they live. Oppression thus constitutes a form of dehumanization.

Freire's theory of education aimed to counter dehumanization by structuring and making systematic what was most deeply human. His seminal book—*Pedagogy of the Oppressed* (1970)—elaborated the implications of his view of human nature, making historicity the starting point not only of understanding the essence of human beings but also of an emancipatory pedagogy. His theory and pedagogy have influenced movements for social justice on every continent, and they have affected classroom practices among educators seeking a humanistic approach to teaching and learning. Freire himself worked in a variety of geographical locations and was at one time a consultant to UNESCO (United Nations Educational, Scientific and Cultural Organization) and the World Council of Churches.

Foundations of the Theory

Theories of education illuminate the changes elicited from, or imposed on, human nature to turn that natural person into a morally, socially, and culturally ideal person. That is, some kind of education mediates between who we innately *are* and who we *should be*. Freire argued that praxis (reflective, conscious action) and historicity (people's capacity to make history and culture at the same time as history and culture make them) are the two defining features of human existence and the defining essence of being free. The ideal society for Freire is one that maximizes this essence for all people, and he argued that this entailed a just and democratic society.

The praxis and historicity at the core of human nature also set the task for education as a practice of freedom for a liberatory and humanistic education. This approach to education constitutes a form of cultural action that awakens people to the power that resides within them to transform themselves and their world. Because simply by being human we

are always already continuously producing history and culture (as history and culture also continuously act on and condition us and our world), we need only become critically and consciously engaged in that process (praxis) to be enacting our capacity to be free and to be forging a society shaped toward ends we have chosen for ourselves. In a society that is unjust and nondemocratic because large numbers of people are oppressed or dehumanized, and are excluded from participating in their own self-determination, this kind of education creates a counterforce to these realities and embodies just and democratic practices.

A liberatory education involves oppressed communities in a collective questioning of the "commonsense" everyday understanding of life and of the explanations for why the social, economic, political, and cultural realities have come to be. The critical consciousness that arises through this questioning even interrogates the process of knowing itself and the self-understandings of those who are oppressed. It seeks to uncover the ideological distortions of knowledge, so that a clearer "good sense" of reality and the self can be achieved. This knowing better of what had previously been known only from a dominant ideological perspective is not something achieved in thought alone. Rather, "conscientization" or critical consciousness is only gained through action, through praxis. Paulo Freire called this praxis *dialogue* to emphasize its communicative and meaning-making properties.

Dialogue is not mere conversation, nor a way of taking turns in discussion. Rather, dialogue is a collaborative critical investigation of what prevents oppressed people from being self-determining, from intentionally producing a culture and society that accords to all this essential human right, and this investigation is embedded within ongoing actions that challenge and overcome those situational limits. This kind of dialogue provides a way for oppressed people to "speak a true word" and emerge from the "culture of silence" that has long dehumanized them. Freire regarded the "culture of silence" not simply as the ways that the literal speech, or voice, of the oppressed is prevented from being verbalized or expressed in language. Rather, this concept references the institutional and structural marginalization of the needs and interests of oppressed groups, and therefore the response—"speaking a true word"—is not achieved in language alone but only through actions aimed at challenging and transforming the institutions and power relations of the society.

Freire's radical pedagogy was designed to elicit these transformative actions. He embedded the pedagogy within literacy projects that linked the reading and writing of words (the actual interpretation and production of linguistic signs) to the reading and writing of reality (the interpretation and production of daily life). This literacy becomes critical through investigating the defining structures and power relations that shape everyday experience and identifying transformative "limit-acts" that break the constraints of dominant institutions and ideologies.

These critical investigations and efforts to reconstruct society to make it more just and democratic enable oppressed people to "know better" the "common sense" that legitimates dehumanization. With "good sense" undergirding their emerging critical consciousness ("conscientization"), they can challenge not only the social, economic, and political structures that maintain the power of the dominant groups but also the internal psychological structures that maintain their own collusion in oppression.

Freire argued that these pedagogical tasks of intentionally producing a just and democratic society in which the oppressed can be self-determining amounted to a process of *cultural action for liberation*, and this ongoing transformation of everyday life was the way in which human freedom is realized.

A Critical Pedagogy

Educators worldwide took hold of some core elements of Freire's theory, particularly its articulation of the contrast between traditional schooling ("banking education") and education as a practice of freedom ("problem-posing education"). Freire's analysis (see *Pedagogy of the Oppressed*, chap. 2) enabled educators to fashion a critical humanizing pedagogy that could be applied in classrooms for both children and adults.

Banking education centers on the knowledge, language, goals, and interests of the teacher and of the institutional, social, economic, and political power represented in the formal structure of schools and in the authorized curriculum. The teacher actively teaches, while students passively absorb what is taught. The teacher thinks and talks, and the students listen and memorize. The teacher knows, and the students are ignorant until their minds are filled with the content that the teacher deposits in them. The teacher disciplines the students to conform to the dominant order, and the students learn to be passive and compliant. Banking education not only

objectifies and dehumanizes the students through these structures and dynamics, but it prepares them to accept their oppressed position in the larger society. Even more insidiously, banking education operates under the guise of neutrality, obscuring its commitment to the maintenance of the status quo. This reinforces the dominant ideology that blames the victims of injustice, as if the effects of the dehumanization inflicted on them by the structural inequities undergirding the institutions of society, including its schools, were their own fault.

In contrast, problem-posing education rejects the possibility of neutrality and makes explicit its own ethical and political commitments. It elicits and strengthens the subjectivity and agency of oppressed students; it recognizes them as cocreators of the history and culture in which they live. Problem-posing education is dialogical and collaborative throughout, bringing the voices, interests, and perspectives of the students into a critical engagement with their everyday social, economic, and political realities. This engagement reveals the dehumanizing limits imposed on their realities by unjust social, economic, and political institutions so that they can intentionally act to transform and overcome those limits. Problem-posing education illuminates the foundational power inherent within each person and every community to make society more just and democratic.

In problem-posing education, teachers and students learn from and teach one another. Each has knowledge, values, and skills that they bring to the pedagogical encounter. The methodology of critical pedagogy centers on the analysis of representations of everyday life that encode the institutional and structural relations that reinforce and maintain dehumanizing systems of power. These "codifications" are developed through a study of the formative concrete experiences and linguistic practices that together constitute the "thematic universe" of the learners. The codifications symbolically—through images, words, dramas, or other creative productions—represent the common experiences of the oppressed, and when they are analyzed dialogically, the oppressed can get some distance from their everyday reality to be able to read it critically.

Most people, most of the time, live submerged within the ordinary experience of their lives, seldom questioning how the social, economic, and political structures came to be the way they are, or questioning the commonsense meanings and explanations that legitimate the inequitable status quo.

The analysis of the codifications brings the historical development of society into view and, thereby, also brings into view possibilities for its intentional transformation in the interests of the oppressed. A critical pedagogy links the particular concrete everyday experience of the learner with broader historical and cultural structures that condition that experience. It thereby facilitates critical understandings of the causal forces that shape not only the institutional features of society but also the very identity of the oppressed along class, race, gender, and other ideological dimensions. The critical understandings become sharpened as the oppressed become subjects in history, acting with intention to intervene in the structures and processes of daily life in order to produce alternative futures. That is, in the pedagogical process of knowing themselves and their situations at deeper and more systematic levels, the learners also discover themselves as historical subjects, as human beings capable of transforming oppression.

Thus, a critical pedagogical praxis is a form of reflective, intentional, collective action, action that enables oppressed people to resist the dehumanizing ideologies and institutional structures that limit the realization of their needs and interests. A critical pedagogy facilitates the emergence of the oppressed people's capacity to speak for themselves, to name and pursue self-determined goals, and to organize and mobilize for the assertion of their rights.

Criticisms and Limits of the Theory

Although broadly acclaimed and widely read—more than a half million copies of his foundational book, *Pedagogy of the Oppressed*, sold worldwide in its first 20 years—Freire's theory was criticized from a variety of perspectives. Some Marxists found it too Hegelian or idealistic, with too much emphasis on the communicative and cultural features of society rather than on the material conditions and relations of labor. Some feminists noted how its emphasis on socioeconomic class completely elided gender oppression, while other critics noted the elision of race oppression. Related to both of these criticisms were questions raised about the complexities due to the intersection of class, gender, and race oppressions; only very limited insight into this constellation of issues could be provided by Freire's binary analysis of oppressor–oppressed. Some scholars were concerned about the overemphasis in the theory on cognitive understandings of consciousness, with the concomitant exclusions of the body, feelings, and

emotions from the analysis not only of critical consciousness but also of both oppression and liberation. Related to these criticisms were questions raised by some thinkers who discerned a problematic reliance in the theory on European-origin philosophies, modernist logics, and cognitive forms of rationality.

These substantial criticisms have been echoed in philosophic examinations of Freire's theory, which focus more pointedly on its ontological, epistemological, and ethical dimensions. Some comment on the conflicting interpretive grounding of Freire's primary theoretical sources in particular traditions in Marxism, existentialism, and Christianity, and they trace certain contradictions in the theory to the problems that arise when trying to weave those roots together. Such conflicts can be seen, for example, in Freire's conception of humanization as the ontological "vocation" of human beings. The theological notion of vocation undermines the more historicist ontological interpretation required when analyzing oppression (which Freire labels dehumanization), since it is also a way that humans produce the history and culture that they live. However much we may want to condemn dehumanization from an ethical point of view, we cannot ground this condemnation in an ontological claim. Similarly, Freire inconsistently historicizes his epistemological position, at times deploying a foundationalist view of knowledge or truth claims. Finally, Freire's effort to provide an ontological origin for his ethical ideal of democratic socialism necessarily founders on the logical conundrum of deriving "ought" from "is," and thus, his laudatory ideals require independent ethical and political justificatory arguments that he failed to offer.

Despite the force and range of the critiques of Freire's theory, it has continued to animate the thinking of a wide variety of scholars and activists. This is because he wrested penetrating insights from the opaque workings of history and from his relentless critique of his own practice. Freire argued that what mattered was not so much the consistency and durability of his theoretical formulations but far more the ethical coherence of his relationships with others and his commitments to improve the lives of the least advantaged. On this measure, none can doubt that Freire was above reproach.

Limits to Common Practices Claiming to Enact a Critical Pedagogy

Despite frequent protestations from Freire and other scholars, common practices claiming to enact a critical pedagogy based on his theory in fact domesticated or elided its most important elements. His praxis-oriented concept of dialogue has been widely misinterpreted to mean a kind of individualistic give-and-take conversation between teachers and students, as if simply giving each student a chance to speak and taking turns among speakers would somehow produce effects that could transform the dominant ideological structures of oppression (which reach into even the most humanistic and emancipatory classrooms). Liberation from oppression requires strategic "limit-acts" undertaken by organized collectivities, and dialogue is the form of praxis through which such acts are imagined and embodied. Freire's critique of banking models of education have similarly been misinterpreted to mean that teachers should never lecture or that they did not have a duty to share their expertise and direct certain aspects of learning. He insisted that teachers had a professional responsibility to be knowledgeable in their discipline and that they have the pedagogical expertise to construct learning environments and to pose questions that could unveil the reality of everyday life and draw students into a critical engagement with their learning and with the lives (history and culture) they were producing. Freire insisted on the moral and political equality among teachers and students, but he critiqued the false inferences to their epistemological and pedagogical equality.

Despite the limits to common so-called critical pedagogical practices and the deep misinterpretations of Freire's theory on which they are based, it is an undeniable truth that countless classrooms have become more humane as committed progressive teachers pursued the compelling dream that Freire articulated.

Ronald David Glass

See also Apple, Michael; Critical Theory; Feminist Standpoint Theory; Marx, Karl

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Freud, Sigmund

Known as the founder of the movement, theories, techniques, and clinical practices of psychoanalysis, Sigmund Freud (1856–1939) was one of the most influential figures of the 20th century, who revolutionized our understanding of the mind and its realms of the unconscious and the conscious, and of sexuality. He viewed each of us as being a stranger to ourselves and proposed a depth psychology that grappled with the conflicts that lay hidden from us—between love and hate, happiness and unhappiness, history and memory, life and death, and union and separation. Freud perceived psychological suffering as emerging from the loss of love and from forgotten or repressed incidents from the individual's childhood history. Recognizing the psychological fact of the human's slow maturation, and prolonged helplessness and vulnerability to others, Freud had education as a motif running throughout his work.

Freud identified the unconscious and its pleasure principle as the source of our significant, though unknown, motives for action, thought, and perception. He found that unconscious desires were expressed in dreams, slips of the tongue, jokes, and everyday mistakes, and he treated perception as passionate, that is, not as a neutral faculty but as oriented to wishes. Awareness or consciousness of one's own mental acts, he argued, is the exception in mental life. Freud then raised the novel question, what are the unconscious attitudes and history of mental development beneath the surface of behavior?

Biography

Subjectivity is the starting point of psychoanalysis, and Freud's biography is relevant to the design of his theory; those approaching his work can avoid neither his life nor his surprising admissions and his usage of his own self-analyses.

Freud was a Viennese Jew, deeply affected by the anti-Semitism of his time that culminated in National Socialism's rise to power and the death camps. In 1938, he went into exile, living his last year of life in London. In his youth, he had studied medicine at the University of Vienna, from 1873 to 1882, following which he became a researcher in physiological science, and by 1886, in partnership with Josef Breuer, he began a psychotherapeutic practice treating hysterics. With his patients, he created "the talking cure," and, against the current of his time, he left the method of hypnotic suggestion behind and instead interpreted illness as communicating a story of suffering that could be revealed through the patient's words. This orientation led him to design the method of free association, in which he requested patients to say anything that came to their minds without censoring their thoughts, and he asked them to report their dreams.

His interest in archaeology provided a metaphor for this realm of the unconscious—it could be understood as fragments of forgotten impressions buried and so preserved. His research revealed that childhood events were formative, but he also recognized that many of these events were subject to infantile amnesia; one of his most contested ideas was that memory and forgetting are two sides of the same coin and that we act out or compulsively repeat what cannot be remembered. In other words, the meaning of actions and mental representations cannot be revealed by the actor's intentions, since the human faculty of reason too is subject to an unconscious psychology of motives.

In sum, then, Freud's psychoanalytic theory depicts the mind as dynamic and multilayered, with much of a person's behavior driven by the inner unconscious realm and by the associated desires and drives. The terminology he used within this theory eventually saturated the vernacular and is now widely familiar.

Freud's psychoanalytic writing—23 volumes and an index, known as *The Standard Edition*—is a cornucopia of topics and styles. He wrote case studies of his therapeutic practice and wrote papers on psychoanalytic techniques, metapsychology, and group psychology; he made studies of art and literature; he discussed war, nationalism, and death; and he wrote histories of the psychoanalytic movement, lectures for popular audiences, and historical studies on mythology and religion. Peppered throughout this work are his key concepts along with the problems they identify: sexuality, the Oedipal complex, the meaning of dreams, the roles played by the unconscious, the psychical world, transference love, and symptoms of illness such as neurosis, psychosis, anxiety, resistance, and psychological defense mechanisms. He blurred the lines between health and illness and sanity and madness and considered that if love holds the person together, its loss causes him or her to fall apart. (Freud maintained that there are three sources of human suffering: loss of love, loss incurred through historical and natural disasters, and loss of the self; the loss of love was the most

painful.) He defined "the cure" as the capacity to work, to love, and to tolerate the myriad losses that reality incurs.

Major Theoretical Themes

Freud developed two theories of the mind. The first, called the *topological model*, posited that the mind had three layers—the conscious, the preconscious, and the unconscious. By 1920, his second structural model (compatible with the first) proposed dynamic interacting psychical agencies that he called the ego ("the I"; German, *Ich*), the id ("the It"; German, *Es*), and the superego (German, *Über-Ich*) (the latter two being, respectively, the unconscious and instinctual portions of human nature and the set of sociocultural norms and strictures that individuals acquire usually in childhood and that act as a form of moralizing conscience). The new problem that arose here concerned the nonunitary or divided nature of the subject. This led Freud to focus on the realm of human affect (feelings and emotions) through its major indicator—anxiety as fear of loss of love; he then took on the emotional volatility of the internal world. Late in his theorizing, Freud viewed the ego as being formed through its history of identifications and held that it is subject to three dangers: (1) internal pressures emanating from the id, (2) the demands of conscience and feelings of guilt coming from the super-ego, and (3) forces from the external world. For Freud, the ego was a creature of compromise, and its work involved perception, reality testing, judgment, thinking, and the handling of incompatible thoughts. Its strengths were also areas of its vulnerability.

Freud's theoretical breakthrough had emerged from studying his own dreams as a portal to his unconscious mental life. While the interpretation of dreams can be traced back into antiquity, Freud saw dreams as the royal road to knowledge of the unconscious. He recognized that they had two layers of competing meaning: (1) the manifest and (2) the latent. His method of interpretation of the latter took into account the dream world's method of disguise—dreams expressed forbidden wishes, but these were highly disguised through the "dream work" of condensation, displacement, reversal, substitution, and representation. He came to understand that, as well as in dreams, the unconscious erupts in bungled actions, linguistic errors, jokes, accidents, forgetting important details, and everyday mistakes.

Another breakthrough came with Freud's approach to sexuality, which he regarded as beginning with the infant's bodily erotogenic zones, stimulated by parental care and love. Oral, anal, and genital experiences orient the child's precocious sexual researches and inaugurate curiosity toward where babies come from, the difference between girls and boys, and an interest in parental sexual life. The complexities Freud ascribed to children and his insistence on their search for truth and knowledge inaugurated the new fields of child psychoanalysis and psychoanalytic pedagogy. The idea that sexuality comes early, and is both precocious and polymorphous in perversity, expands the concept of sexuality—it becomes related to the capacity for curiosity, imagination, intellectual life, sublimation of the drives, and the desire for knowledge of others.

These grand themes of the unconscious and sexuality led Freud to grapple with issues such as why we follow authoritarian leaders and what is the impact of group psychological life on the individual; here Freud's theories of the subject and intersubjectivity become significant for education, by way of the idea that even as one is in the throes of identification with the rivalries and demands of group psychological life, by narrating this as a story one can gain distance from its projections, compliances, and authoritarian tendencies.

Applying psychoanalysis to social problems requires a facility with Freud's theories and imaginative flexibility. Consider, for example, the nature of human culture. Freud found this to be the source of what is tragic in the human—aggression, the proclivity toward violence, and his postulate of the impulse he called Thanatos, or the death instinct, socially sanctioned by war, nationalism, and narcissism of minor differences. While his study on civilization and unhappiness asked again about love and hate and how happiness in a cultural context is possible, he nevertheless considered culture as a powerful force in sublimating aggression.

The strengths of Freud's theories are also their weaknesses—and a close reading reveals that he took an interest in these. His work resided in speculations, hypotheses yet to be proved, and imaginative leaps that took him beyond the limits of experience. Readers bring strong views to Freud, and there are common tendencies to dismiss Freud through clinging to one's own experience, psychoanalyzing Freud's motives, and concluding that Freud reduces all human reason to psychological processes and to pansexuality. In Freud's favor, no one can settle the problem of where misery or discontentment comes

from and why education both induces anxiety and creates the means for its symbolization.

Deborah P. Britzman

See also Analytical Psychology: Carl Jung; Individual Psychology: Alfred Adler; Neill, A. S., and Summerhill; Psychoanalytically Oriented Theories of Child Development; Rogers, Carl: Freedom to Learn

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FROEBEL, FRIEDRICH

The German educator Friedrich Wilhelm August Froebel (1782–1852) was among the most important educational theorists of the 19th century. Today, he is primarily known as the founder of the idea of the kindergarten. The son of a Lutheran minister, he was profoundly shaped by his early religious experience. While his religious beliefs were at first quite orthodox, he eventually embraced a highly spiritual and pantheistic view of the world in which the forces and manifestations of Nature literally revealed the truths of religion and the meaning of God. As he explained,

> Nature presents the truths of religion in visible form, and confirms what we learn by meditating upon God. What we thus conceive we find existing in the material world. So it is that nature satisfies the demands of religion. For like all that exists, nature reveals God. (Froebel, 1912, p. 97)

Like his Swiss mentor, Johann Pestalozzi (1746–1827), Froebel felt that children had unique needs and potentials that required careful development and nurturing. According to him, children should begin to be educated shortly after birth. Learning would then continue as a lifelong process. His model emphasized not only hands-on learning for children but also their development of a spiritual understanding of the world.

Froebel's educational philosophy is most clearly outlined in his 1826 book *The Education of Man*, in which he described God as a "Divine Unity" who connects all living and inanimate things through the divine spirit. Ideally in his system, children would be taught to observe and understand the world in which they lived. Learning involved being, as much as possible, one with Nature. This model contradicted the notions of philosophers such as John Locke (1632–1704), who believed that the child was a vessel to be filled with specific information and knowledge by the instructor or teacher. This idea that the child/learner should not have ideas forced on them explains, to a large extent, why Froebel appealed to more modern educators such as the American progressive John Dewey (1859–1952), who emphasized learning as a process of exploration and self-discovery for the child.

Froebel opened the first kindergarten in 1837 in Blankenberg, Germany. Many of the ideas he developed for the school were a direct outgrowth of his two-year apprenticeship as a forester, as well as the time that he worked as a mineralogist in the Royal Museum in Berlin. From his work as a forester, Froebel almost certainly developed a greater sense of the spiritual elements found in the natural world, while his work as a mineralogist probably made him more aware of patterns found in Nature. Both of these ideas—that is, the spiritual connection between things and the patterns found in Nature—were key concepts for his kindergarten curriculum, which was loosely described as the "Gifts and Occupations."

These "Gifts" and "Occupations" were a series of activities intended to provide the child with a clearer understanding of how the world works. Many of the activities were not just practical but also deeply spiritual in nature. Twenty in number, they were ranked in terms of their complexity and difficulty. The Second Gift, for example, physically demonstrated the German philosopher Georg Wilhelm Friedrich Hegel's (1770–1831) dialectical theory of thesis $\leftarrow \rightarrow$ antithesis = synthesis. This idea, which argues that through the conflict/friction of opposites a synthesis emerges, was not only a key philosophical concept for 19th-century philosophical thought, but

manifests itself in the writings of later figures such as the political philosopher Karl Marx (1818–1883). The Second Gift specifically demonstrated Hegel's theory by employing a three-inch wooden sphere, a cube, and cylinder. The child would feel the wooden sphere (often blindfolded), making note of its roundness, and then feel the cube with its flat linear sides. Finally, he or she would explore the cylinder, which is a synthesis of the sphere and the cube, being both round and flat, properties (the synthesis) that conform strictly to neither the sphere nor the cube.

Many of the Gifts and Occupations have become commonplace in various forms in early childhood education and culture. Sadly, they are used today with little knowledge of their origins with Froebel and the kindergarten. For example, the Third through the Sixth Gifts are a set of building blocks, whose sophisticated design provided the basis for the Unit Block system that is in widespread use in early childhood settings today. Likewise, the flat parquetry squares and triangles that were used in the Seventh and Thirteenth Gifts are commonly used in contemporary classrooms as part of mathematics instruction (tessellation). The Nineteenth Gift is a primitive Tinkertoy-like set made of cork balls and toothpicks, which demonstrates to the user basic engineering and structural forms.

Froebel's work is largely neglected in our own era. His connection to the modern kindergarten is distant at best. This is unfortunate, since he has a great deal to say to contemporary educators. Like the more recent anthropologist Gregory Bateson (1904–1980), Froebel was interested in the "pattern which connects all the living creatures." In Froebel's case, this manifested itself in the form of God. Such an approach need not necessarily be religious but can be ecological in Nature—one that involves how all things in Nature are interconnected and related to one another in the larger phenomenon we call Life.

Eugene F. Provenzo Jr.

See also *Century of the Child, The*: Ellen Key; Montessori Education; Pestalozzi, Johann H.

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GADAMER, HANS GEORG

See Hermeneutics

GANDHI, MAHATMA

Human societies have evolved through the cumulative contributions of their members. But some individuals stand out for their unique contributions to the enrichment of human life and the positive transformation of society. Luminaries such as Leonardo DaVinci, William Shakespeare, Isaac Newton, Charles Darwin, Albert Einstein, Ludwig Beethoven, Leo Tolstoy, Nelson Mandela, and Bertrand Russell come to mind. Their life journeys inspire some and evoke debate among others. Mohandas Karamchand Gandhi (1869–1948) continues to evoke both reverence and hatred. By looking at his life, we can gain some understanding of how he changed the lives of Indians during British colonialism, and we can see how his ideas continue to be relevant in this age of globalization. Gandhi saw the purpose of education not simply in terms of acquiring knowledge but as the building of character. He believed that education was a liberating force that required the development of body, mind, and spirit. His belief in the power of education was an important element in his campaign for Indian self-rule.

Gandhi's name, however, is inextricably associated with nonviolence, and the model offered by his life in this respect is widely studied in peace education programs. However, equating Gandhi with nonviolence in a narrow sense would be missing the essential Gandhi—to know him in this way, as we need to know not only what he achieved in his life but also how he lived his life. Since his life is his message, as he put it, this entry is an attempt to provide a brief but panoramic view of Gandhi's life in order to drive home his essential message.

Born and educated in India, Gandhi earned a law degree in London and moved to South Africa in 1893 on the invitation of a client to provide legal assistance. There he experienced firsthand the indignity of racism directed at both Blacks and minority Indians. He decided to fight this injustice, and the struggle kept him in South Africa until 1914. He had experienced racism in London, but South Africa was different. The shocking experience of being thrown out of a first-class train compartment even though he had a valid ticket, the insult of the nonrecognition of Indian marriages by the state, the humiliation of being forced to carry identity cards, and, of course, the naked racism practiced against the Blacks—all these exposed Gandhi to new challenges. He decided to stay and take these challenges as an opportunity. He launched a civil disobedience movement in South Africa. This was the beginning of a lifelong struggle to learn how we ought to live our lives. It was the beginning of what he would call his "experiments with truth."

The Making of the Mahatma

Truth (*satya*), nonviolence (*ahimsa*), and nonattachment (*aparigraha*) are cornerstones of Indian philosophy and religion. Gandhi grew up in a religious

environment where these exerted great influence. Beginning with his stay in London, he was also influenced by the Bible; the Indian scripture, the *Bhagavad Gita*; John Ruskin's *Unto This Last*; and the writings of Leo Tolstoy. Gandhi paraphrased *Unto This Last* and decided it pointed in the direction of a life worth living. The welfare of all became his life's goal and sacred duty (dharma).

Gandhi adopted a life reduced to minimum necessities, and he worked his influence on his wife, Kasturba, at the same time. She went to jail to protest South African leader General Jan Smuts's nonrecognition of Indian marriages. This was a turning point for Gandhi, and he began the process of transforming ancient Indian ideals into concrete programs of action. With truth and nonviolence as his uncompromising moral principles, he launched his civil disobedience movement and experimented with the use of satyagraha (soul force) as a constructive weapon for waging nonviolent struggle against oppressive regimes. Satyagraha means insistence on truth, and the ideal satyagrahi possessed inner strength and the ability to face physical oppression inflicted by his or her opponent.

Gandhi lived in South Africa for more than 20 years—the most revolutionary and transformative years of his life. While it was not until much later that the Indian poet laureate Rabindranath Tagore gave Gandhi the title of "Mahatma" (Great Soul), in reality, he became that person in South Africa. There is a saying in South Africa, "India gave us Mohandas and we gave them back a Mahatma."

The Mahatma in India

Aboard a ship on his way from London to South Africa, Gandhi wrote down his dream of a free India, published in 1909 as *Hind Swaraj*. He returned to India in 1915 and led the freedom movement, which was based on massive participation of Indians. Millions identified with him and were able to grasp his method of satyagraha. He identified with Indians facing a wide variety of problems and tried to provide them with hope for change. People were drawn to him, lining up at railway stations and roadsides to get a look at him. When he built his residence (ashram) in Ahmedabad between a cemetery and a jail, he commented that this was the right place for a satyagrahi, one who is prepared to suffer and die for a good cause.

Although Gandhi was a prolific writer, he communicated with the people directly, traveling widely in the country. He also introduced the use of the spinning wheel, which was as much a political and ideological symbol as a real indigenous-based economic tool meant to alleviate suffering.

As a freedom fighter, Gandhi did not spend all his time rallying against the British Raj; a good deal of his time was spent rallying Indians for true independence (swaraj), awakening them to their own, homegrown social ills, which, he said, had chained Indian society. He launched a host of social reforms, each of which earned him a separate group of enemies. The programs included the spinning wheel and the *swadeshi* movement, eradication of untouchability, the welfare of the harijans (*dalits*), Hindu–Muslim unity, protection of animals (in particular, cows), agitation against liquor, and promotion of women's empowerment. For Gandhi, political freedom from British colonialism and freedom from repressive domestic social evils went hand in hand.

Gandhi drew strength from many religions, considering himself both an Indian citizen and a citizen of the world. If truth, nonviolence, and satyagraha (soul force) were the foundation of his struggle, then swaraj (freedom), *swadeshi* (self-reliance), and *sarvodaya* (welfare of all) were his life's goals. He introduced a new, apprenticeship-based system of basic education (*nai talim*) and experiential learning, the relevance of which has been stressed by many educators. Gandhi's India resided in her 7,000 villages, and his dream of a free India was based on the foundation of a decentralized, self-reliant village economy rather than on a centralized, top-down bureaucracy.

The Broad Message

Gandhi believed in simplicity of living and the reduction of wants to basic necessities. He believed that unchecked greed is unsustainable. "The earth," he remarked, "produces enough for everybody's need but not for everybody's greed."

Gandhi also believed in community, a life based on sharing and sacrifice. He implemented his vision first with his family. Gradually, his ashrams exemplified it; and it was adopted by his satyagrahis.

Gandhi spoke of freedom from fear. He insisted that no one can rule us without our consent. Many found his actions of breaking unjust laws and pleading guilty with consequent personal suffering both heart wrenching and empowering at the same time. When he would be arrested and put in jail, people would demonstrate en masse, get arrested, and fill the jails. This led both to the loss of fear of jail and to the jails becoming useless as a means of suppressing dissent.

Gandhi was a hands-on man with a clear goal and a long-term vision of what he wanted to achieve. He also believed in forgiveness. There were many times when he was manhandled or beaten. He was forgiving both because he was a genuinely forgiving man and because it freed him from unnecessary distraction. While a proportionate response to violence may seem just to many, violence was violence to Gandhi, no matter how it came about; he believed that seeking an eye for an eye would make "the whole world blind."

Gandhi spoke of "the universal law of love." He claimed to have no enemy. Holding no office, he represented the conscience of millions. He had a strong confidence in struggling with the right means and not worrying about the outcomes. He insisted that "fair means alone can produce fair results."

The Essential Message

Gandhi had no invention, no creation. Even nonviolence was, as he said, as old as the hills. But he took what was old and gave it power for the present. The tradition of nonviolence was essentially a moral and spiritual tradition in India: He added to it the power of concerted, strategic, mass action for social change. He was dealing with the question of how we should live, and his answer insisted on *action*.

Gandhi was loved by millions and called Bapu (father); he was revered by millions and called Mahatma, although few who revere Gandhi today wish to live like him.

Gandhi saved the tradition of nonviolence from political irrelevance. It became his cornerstone for humanity's quest for justice and peace. Coming on the stage when the Industrial Revolution was at its peak and humanity was challenged by the machine, a time when nations were sliding into world wars, Gandhi challenged modernity by indicating a different way forward. To show this way, he turned his life into an experiment for the world to see— both successes and failures alike—and became a mirror to the world. As he said, his life is his message.

Rama Shankar Singh

See also Indian Religious and Philosophical Traditions and Education; Peace Education

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GENDER AND EDUCATION

The rise of gender as an issue of concern for social research, policy, and practice has had a major impact on the field of education. While typically associated with a strong policy and practice agenda to address gender-based disadvantages, the gender and education couplet has also fueled a diverse range of theoretical and empirical scholarship. This has brought new perspectives to understandings of the purposes, effects, and experiences of education and shown the importance of questions to do with identity, sexuality, and relational dynamics. Of course, gender existed as a differentiator and marker of educational experiences and outcomes prior to the 1970s and the rise of second-wave feminism. The significant turning point lay in identifying such differences, and gender itself, as matters that warranted scholarly and policy attention. This entry discusses the study of gender inequality in education, the influence of feminism on education, the use of the term *gender* in educational research, and the influence of poststructuralism in research on gender. It then discusses the increasing research on boys' educational experience during the 20th century, as well as more recent and emerging issues in research on gender education.

Education has been a central site of feminist inquiry, examined for its part in (re)producing gender-based inequalities, for promoting changes in gender identities, roles, and relations and for questioning the construction and effect of gender normativities (Arnot & Mac An Ghaill, 2006). A significant legacy of early feminist interventions was to interrupt commonsense views about gendered experiences and futures, by identifying some differences as not natural and acceptable but

as social problems and inequalities that demanded redress. Gender differences in subject preference, postschool aspirations and destinations, informal social and interpersonal practices, and so on were noticed as problems, as reflecting a gender order that produced advantages and disadvantages (McLeod, 2004). How such differences were and are conceptualized, and their sources and effects analyzed, continue to be debated, contributing to the emergence of a rich and varied field of educational scholarship.

While one might hesitate before claiming feminism's influence on education as universal, its impact is far-reaching. Gender equality as a formal aspiration is enshrined in policies in developed and developing countries and in the goals of international agencies such as the United Nations. The *United Nations Millennium Goals* include the target to "Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015" (United Nations, 2010). Improving gender equity and access has been an important but not the only strand of research and policy. Gender and feminist scholarship has also addressed the epistemological, ethical, and relational dimensions of education. This encompasses making problematic what has counted as worthwhile knowledge, according serious attention to the effects and forms of interpersonal relations, and examining the intersecting practices and processes that shape gendered identities across diverse educational sectors and settings. Much debate within the field of gender and education is characterized by struggles over how to recognize claims to difference and claims to equality—with reference to differences between genders and differences within gender groups. Does recognition of gender differences weaken claims for equality? Does equality demand sameness, or can equality accommodate difference? Responses to such questions have fueled extensive theoretical and philosophical debate and shaped feminist educational reforms.

Sex, Gender, and Identity

The term *gender* typically signals an attention to the socially formed nature of male and female identities, relationships, and orientations. This contrasts with earlier uses of the term *sex* to denote differences between males and females, which often assumed such differences to be fixed or natural. In educational research from the early 1980s onward, gender began to replace sex as the preferred descriptor of male/female identity differences, reflecting debates within feminist and social theories that looked to the social and discursive dimensions of identity. In the sex-differences mode, researchers tended to assume that the category of sex was stable, and research was concerned to investigate its effects. In the gender-research approach, attention has been more on investigating how patterns and forms of differentiation are produced, and consequently, it has helped spawn a large body of research concerned with processes of gender construction in education.

Important shifts in conceptualizing difference and identity in the field of gender and education can be schematized as follows. Notions of sex role and socialization marked second-wave feminism, and in education, this translated into a concern with investigating sexism, nontraditional roles, and equal opportunities. Reflecting the influence of socialization theories and symbolic interactionism, identities were seen to be much like social scripts, and with the right messages, nonsexist roles were possible. The 1980s saw a turn to focusing on specifically feminine and masculine ways of being in the world, reviving in some respects notions of inherent, embodied gender differences—but with a positive inflection. Influenced by ideas from cultural feminism and feminist psychology and philosophy (see, e.g., Gilligan, 1982; Martin, 1986), educational researchers explored distinctive feminine learning styles, pedagogies, and knowledges, seeking in part to recast understandings and expressions of femininity not as something to be ignored or erased in the educational conversation but as integral to it and as deserving recognition and value. On the one hand, the turn to "difference" in education promoted relatively conventional ideas about masculinity and femininity and of gender relations. On the other hand, it encouraged a more nuanced account of the heterogeneity of gender identities. Notions of intrinsic difference were challenged in the 1990s by a sustained focus on gender as a social or discursive construction, thereby placing analytic attention on the circumstances and conditions that produced or shaped gender identity. If gender was social, then it was open to change and variation. The conceptual binaries of natural and social, as with those of difference and equality, present ongoing dilemmas for gender researchers in education, reflected as well in

the focus and rationale of policy reforms, navigating between, for example, noticing or not noticing gender as a category of concern or seeing gender differences in learning styles and aspirations as amendable to intervention.

Gender and Other Factors

Concurrently, feminist theory was shaping and being shaped by the wide range of ideas and analyses that come under the banner of poststructuralism, which provided an influential theoretical approach for understanding gender and subjectivities. Within education and beyond, it generated large bodies of research addressing the diverse ways in which gender identities and relations were not natural or essentialized, and/or stable or singular, but rather they were multiple and contingent, and/or produced and performed. These ideas have provoked considerable debate, often leading to polarized positions, which remain influential today. At one end of an imagined continuum, poststructuralism is seen as signaling political inertia, driven by antiessentialism and discourse determinism that undermines the very category of "woman" and concepts of agency. While some feminists lamented that poststructuralism was bad for women and bad for politics, other feminists challenged the very formulation of such a view of (feminist) politics and of subjectivity, arguing that such critiques represented not a repudiation of the subject but an interrogation of its construction as foundational (Butler, 1990). Here, poststructuralist arguments were brought to challenge some of the foundational narratives of feminism itself, and this too was felt across gender researchers in education. At the other end of a continuum, feminism and poststructuralism were seen as pursuing potentially complementary lines of analysis, both posing skeptical and deconstructive questions to normalizing practices and working to destabilize taken-for-granted truths—of gender subjectivity, of gender relations and relations of power, and so forth (St. Pierre & Pillow, 2000).

The spread of these ideas accompanied a growing unease about the ethical and political effects of addressing gender in isolation from other social and identity categories, fostering more sustained attention to differences within gender categories, and a focus on the social and subjective effects of intersecting differences—of race, ethnicity, class, sexuality, disability/ability, age, and religion. Often called "intersectional analysis," it examines relations between different dimensions of identity—of class and gender, or race and gender—reviving critiques of the universalism of gender or tendencies to homogenize gender-based inequalities and experiences in education (Ali, Mirza, Phoenix, & Ringrose, 2010). Questions of sexuality, homophobia, and heteronormativity were placed firmly on policy and scholarly agendas. While these matters had been central in earlier second-wave feminism, particularly among radical feminists, the poststructural and intersectional turns helped give renewed emphasis to the multilayered dimensions of gender as a social relation and an identity. At the same time, there is some evidence to suggest that gender, as a focus for sustained policy focus, as relevant to professional knowledge, or even as relevant to scholars beyond the field identified as "gender and education" research, is no longer as prominent as it has been in the preceding decades. This is likely due to many factors, not least the views that gender inequality is not the problem it once was, that there are demonstrable improvements in the circumstances and opportunities of some women, and that feminist agendas, both scholarly and professional, have now been mainstreamed.

In the final decade of the 20th century and into the next, growing concerns about the educational experiences and outcomes of boys led to what has been characterized as a "boy turn" in gender and education research (Weaver-Hightower, 2003). For some, this represented a backlash against feminist gains, for others, it was about giving equal attention to boys, to correcting the imbalance of attention on girls and women, when—this argument said—there had already been substantial, if not too much, feminist, progirl activity. A proliferation of research and polemic ensued, informed by a mixture of ideas about forms of social and educational fairness and equality, and often reviving notions of natural difference between the genders. Many feminist and profeminist educators have regarded these interventions as counterproductive and based on flawed or limited evidence. However, one less remarked-on effect is that arguably these debates also contributed to unsettling understandings about gender and education, forcing a critical refocus on the relational dimension of gender and education as a field of policy, practice, and lived experience. At the same time, scholarly work on masculinity, and the influence of concepts such as "hegemonic masculinity" (Connell & Messerschmidt, 2005), have been crucial in expanding the sense of what matters as part of the gender and education field,

and in encouraging critical analysis of (structured) relations of privilege and subordination, not simply as patterns and points of gender differences.

Current and Emerging Issues

Contemporary scholarship in gender and education is characterized by a degree of theoretical diversity, engaging with and informed (by and large) by social science—including psychological fields—and humanities traditions. However, the influence of social constructionism and of poststructuralism—in both their "weak" and "strong" versions—continues to shape much work. Maintaining robust theoretical diversity and dissension is an important challenge. So too are the challenges posed by engaging with the far-reaching effects of globalizing processes and transnational flows of ideas, people, and capital. Gender and education scholars, along with others, are increasingly looking beyond the concerns and theories emanating from the global north and west to heed the challenges and questions posed by nations and regions that have usually been on the edges of such discussions, unless introduced via gender and development discourses (Connell, 2011). Discussions of spirituality and religion are on the rise, notably in relation to the politics of exclusion, questions of tolerance, identity and difference, and responses from national systems, schools, and curriculum programs to expressions of religious diversity. Expanding research on sexuality and sexual politics, developing insights from queer theory, and giving more visible attention to lesbian, gay, bisexual, and transgender issues are important in current agendas. Many long-standing issues command and demand ongoing attention—most particularly, in relation to gender-based violence, bullying and harassment, and the emotional, affective, and relational dimensions of education—those of community and care and concern for others (Lynch, Baker, & Lyons, 2009). In the contemporary period, gender is mainstreamed as a category for data collection and for auditing access and participation, yet in many parts of the world, it is simultaneously at risk of disappearing as a priority focus for educational policy and reform. Grappling with such complexities in the present are part of the making and remaking of the field of gender and education.

Julie McLeod

See also Feminist Epistemology; Feminist Ethics; Feminist Standpoint Theory; Identity and Identity Politics; Martin, Jane Roland; Moral Development: Lawrence Kohlberg and Carol Gilligan; Noddings, Nel; Postmodernism; Sexual Orientation and Gender Identity; Social Constructionism

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GENERAL SYSTEMS THEORY

See Accountability and Standards-Based Reform; Complexity Theory

GLOBALIZATION AND WORLD SOCIETY

Globalization is a term frequently used to capture the reality that diverse peoples of the world are increasingly economically, politically, and culturally interdependent. Numerous scholars have called attention to how advances in communication, transportation, and computerization have fundamentally altered human existence, to the extent that we might describe contemporary human societies as networked societies. Along these lines, globalization has been characterized by scholars such as David Held and Anthony Giddens as the reduction of time and space such that happenings in one part of the world hold the potential to implicate people in other parts. Although globalization most recently is linked to the technological advances of the middle to the late 20th century, the actual dawn of widespread contact across distant regions of the world dates back to earlier developments, mostly linked to the emergence of worldwide trade, such as the emergence of the Silk Road and the rise of transoceanic shipping. Such developments also contributed to the rise of colonialism, which, for some, might be seen as the dark side of globalization. On the other hand, globalization creates a demand for new conceptions of citizenship and so serves as a challenge to educators and to philosophers of education.

Evolution of Globalization

Globalization brings greater numbers of peoples into contact, largely creating two competing possibilities: (1) the potential for domination by more powerful groups (typically operating as extensions of particular nation-states) or (2) the possibility for forms of cooperation consistent with the ideal of a world community or society. There are many examples of both outcomes. In terms of domination, examples include the rise of the great European powers in the 16th and 17th centuries, whose advanced shipping industries and great navies served to colonize vast regions of the world. The emergence of the United States as a world power, and in particular the deployment of its military to further its own economic interests, has been described by Noam Chomsky and Gore Vidal in a manner consistent with forms of domination and imperialism. The same may be said of the former Soviet Union and its domination of parts of Asia and Europe.

As for the emergence of a world community in which nation-states collaborate toward common goals, an obvious example is the founding of the United Nations in 1945 to promote world peace and security. A key facet of the peace-serving mission of the United Nations is served by its International Court of Justice. Other regional and global organizations also tend to fit the world society ideal, including, most recently, the development of the European Union and economic entities such as the Organisation for Economic Co-operation and Development, the World Bank, the International Monetary Fund (IMF), and the World Trade Organization (WTO). Here, though, the ideal of a world society gets somewhat convoluted; some critics argue that the WTO and IMF, among others, actually serve the interests of world economic powers and, consequently, may be better understood as vehicles for domination rather than cooperation. The counterargument offered by supporters of such organizations is that the world benefits when common economic policies are followed, such as when all nations are compelled to eliminate trade barriers (protectionism) relative to specific industries.

Critics of Globalization

Obviously, positions vary on the role of organizations such as the Organisation for Economic Co-operation and Development, World Bank, WTO, and IMF. Official meetings of these organizations, and others such as the G-8 (Group of Eight), have attracted significant opposition, reflected in many cases by massive street protests like those at the WTO 1999 summit in Seattle. These forms of oppositional movements have been described as "antiglobalization" movements, but in fact, they tend to be in opposition to a particular strain of globalization, described as neoliberal globalization (or neoliberalism), so-called because of the focus on advancing free markets through liberalizing

global trade (hence, the "new" liberals or "neo" liberals). Neoliberalism generally is seen to be consistent with the fundamental teachings of Milton Friedman (and his followers known as "the Chicago Boys") and initially was advanced at a global level largely through the political leadership of Ronald Reagan ("Reaganism") and Margaret Thatcher ("Thatcherism"), both of whom advocated a global marketplace with limited governmental interference. Supporters of this economic philosophy tend to see open markets as a better source for enacting just social policies, as opposed to government officials, represented by various political and economic interests, making such decisions on the basis of taxpayer-generated revenue. Reagan's famous quote that "government does not solve problems; it subsidizes them" tends to be consistent with this line of thought.

Although many scholars approach analyses of globalization in economic and political terms, others instead focus on its cultural facets or what might be described as cultural globalization. A common refrain is that societies are becoming more homogeneous, with some arguing that the world is undergoing a form of "Americanization," "Westernization," or "McDonaldization"—the latter reflective of an argument advanced by George Ritzer. Other scholars reject the idea of a world culture emerging under the influence of the West and instead point to the hybridization of cultures and societies, drawing to some extent on the work of Edward Said among others. Scholars subscribing to this perspective, including Allan Luke and Carmen Luke, note examples of localized cultures accommodating global influences, but often on their own terms and in unique ways. Such a perspective suggests a certain level of empowerment among localized populations, an argument largely absent from discussions of globalization as a form of Western domination. The Westernization argument also tends to ignore the influence of cultures originating from other regions of the world; a notable example here is China's widespread influence around the world.

World Community and Global Citizenship

The ideal of a world community also suggests particular notions with regard to citizenship. Terms such as *cosmopolitanism*, *world citizenship*, *global citizenship*, and so forth have proliferated over the past three decades among social theorists concerned with the changing context of the nation-state. Just

as the term *globalization* has a much longer history than is typically acknowledged, notions of world or cosmopolitan citizenship also date back to a previous age. For example, within the context of Western intellectual thought, cosmopolitanism may be traced back to the ancient Greeks, with later updates offered by Enlightenment thinkers. But again, the emergence of highly interdependent networked societies has increased the emphasis on notions of world citizenship.

Some writers argue that as nation-states lose influence over global affairs, giving way in part to multinational enterprises, intergovernmental organizations, and nongovernmental organizations, forms of global citizenship are needed to fill the void left by a declining sense of nationalism and national citizenship. Anthony McGrew, for example, argued that the territorial model of liberal democracy is increasingly challenged by globalization. Consequently, new forms of citizenship highlighting universal rights and responsibilities disconnected from a particular geographic locale (or nation-state) are increasingly needed. A point of emphasis here is the call for worldwide recognition of basic rights for all human beings, advanced to a great extent by a range of social movements (e.g., women's movements, children's rights movements, environmental movements, etc.) and supported philosophically by the Universal Declaration of Human Rights adopted by the United Nations in 1948. Worldwide social movements aimed at advancing universal rights have been described as "globalization from below," which typically is contrasted with global initiatives advanced by powerful organizations and groups and described as "globalization from above" (typically associated with neoliberalism).

Advocates of a world society, often embracing the ideal of global citizenship, argue that contemporary challenges confronting the world's population are too great and complex for individual nation-states to resolve. Issues such as global warming, environmental degradation, widespread ethnic conflict, the proliferation of famine, the continued use of militarization as a form of conflict resolution, threats of global pandemics, among other worldwide concerns, require nations and their citizens, including key organizations and social movements, to work together as stewards of the planet and of peace. Along these lines, Robert Rhoads and Katalin Szelényi (2011) posited that we live in a world in which technology seems to have outpaced the

"social imagination and our ability to construct societies and social relations in a manner consistent with promoting world peace" (p. 6). They argued for a form of global citizenship that incorporates both a sense of world obligation (and rights as well) with a commitment to the local/national context; in other words, global citizenship represents a form of engagement in a larger world society but does not necessitate abandoning more localized rights and responsibilities.

Opponents of the world society ideal come from multiple ideological vantage points. For example, the far right in the United States often stands in opposition to global initiatives led by organizations such as the United Nations, maintaining that such intergovernmental organizations compromise the autonomy of the U.S. government and hence limit its ability to act in the interests of U.S. citizens. Criticism also arises from the political and ideological left, but here, the attack is mostly directed at the neoliberal strain of globalization. Chomsky has been a major voice among such critics, arguing that the neoliberal version of the world order places corporate profit over people. Opponents argue that neoliberals tend to promote global policies favoring corporations and large investors, reflecting the perspective that a rising tide lifts all boats (a version of Reagan's "trickle-down economics"). The critics further argue that only the wealthy actually benefit from neoliberal policies, pointing to the growing gap between wealthy and poor nations, as well as wealthy and poor individuals within particular nations. Jerry Mander (2006) pointedly argued that "the model does not lift all boats, only yachts" (p. 8). For critics such as Chomsky and Mander, the neoliberal version of globalization that now dominates the world is unlikely to strengthen notions of a world society, given that it is seen as perpetuating inequality.

Contemporary forms of globalization involve the widespread reduction of time and space and offer the potentiality of a world society. However, opposing ideological and political perspectives confound any clear articulation of the world society ideal. While some advocate a world community governed by the values of a free market system, others see the need for forms of governmental intervention to address economic inequalities and social problems. And still others oppose any attempt at reducing the power and autonomy of their own nation's role in global affairs. As a result, theories linked to the world society ideal, and to related concepts, such as global or cosmopolitan citizenship, must reconcile a host of complexities and contradictions in the quest for clarity and usefulness.

Robert A. Rhoads

See also Citizenship and Civic Education; Colonialism and Postcolonial Theory; Cosmopolitanism; Economic Development and Education

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"GOLD STANDARD" RESEARCH: CONTROVERSIES

See Educational Research, Critiques of

GOODMAN, PAUL

Paul Goodman (1911–1972) was a public intellectual who is best known today for his 1960 book *Growing Up Absurd*, one of the primary influences on the New Left of the 1960s. Goodman rejected the common claim that the problem with education lay in the schools' failure to properly socialize students. To the contrary, Goodman argued that students were oversocialized and would benefit from the dismantling and decentralization of the public school systems. He proposed a number of small-scale experiments intended to take over the function of the nation's overwhelming, monolithic school systems, and provide authentic education, rather than babysitting and job training. While Goodman's work is largely forgotten today, he has recently received attention as the subject of the documentary film *Paul Goodman Changed My Life* (2011).

Born in New York City, Goodman graduated from the City College of New York in 1932 and received a PhD from the University of Chicago in 1953, writing a dissertation titled *The Structure of Literature*. Goodman's publications included several volumes of poetry and short stories; *Gestalt Therapy*, a book written with Frederick Perls and Ralph F. Hefferline; *Communitas*, a book on city planning coauthored with his architect brother Percival; and several books of social criticism published in the 1960s and early 1970s. He was a pacifist conscientious objector to World War II, a practicing psychotherapist, and an open bisexual who was one of the forerunners of the gay liberation movement of the 1970s.

While almost all of Goodman's work, including his fiction, included some reference to education, this entry will focus on two late works that express the culmination of Goodman's philosophy of education: *Growing Up Absurd* (1960) and *Compulsory Mis-Education* (1964). In both works, Goodman challenged the common view that problems like juvenile delinquency arise from a failure of socialization, from the youths' inability to adjust to society. Rather, youth were maladjusted because the society in which they lived was one into which it was not worth growing up. Thus, educational theory focused on adjustment to society will inevitably fail when that society lacks adequate opportunities for experience and growth.

Goodman was, of course, not alone in tracing the problems of education to larger societal problems. However, while the vast majority of educational theorists proposed programs designed to improve the public school systems, Goodman took nearly the opposite tack, advocating the elimination of compulsory education. Goodman was well aware of the fact that he was attacking a basic bulwark of Enlightenment values; after all, unless accomplishments like literacy are widespread, we cannot hope to escape our intellectual tutelage. But he found education as it currently operated more conducive to strengthening our intellectual dependence on society's elites than to helping us become part of an active, informed citizenry.

Our educational system is designed to construct good workers who have adjusted to society rather than citizens who, themselves, create society. Goodman further claimed that the function of the schools was to provide babysitting, useless administrative jobs, contract work, and students for education schools, as much as it was to educate. The school system was more of a training ground providing skills for employment than a system designed to create enlightened, active citizens; hence, the contemporary (1950s) focus on science education to keep up with the Soviets.

Goodman's proposals for alternatives to compulsory education cannot be understood without an understanding of his political theories, which were based in what we might call his "conservative anarchism." His anarchism was grounded in the general claim that centralized, hierarchical structures tend to be detrimental to human flourishing, while decentralized, open-ended structures tend to promote human flourishing. Goodman was open to certain exceptions to this general claim. Some aspects of society *might*, Goodman confesses, be more conducive to human happiness when organized centrally and hierarchically, but they were exceptions to the general rule. Goodman did not propose large-scale projects that would reproduce the problems of centrally organized institutions; rather, he suggests piecemeal experimentation that would directly involve citizens where they are most likely to be competent and where the consequences of failure would be contained.

Anarchism may be divided into destructive and constructive phases. In its destructive phase, anarchism attempts to destroy centralized systems of power, especially state power. In its constructive phase, anarchism builds up decentralized institutions as alternatives to the present centralized systems. Both phases can be worked on at the same time; one might work to undermine the power of the state while creating alternative institutions intended to take over the essential functions of the state. We have already seen Goodman's destructive phase: the elimination of compulsory education. The constructive phase is just as important to Goodman's philosophy of education.

Goodman proposes several alternatives to compulsory education at the K–12 level, as well as alternatives to de facto compulsory education at the college level. Regarding K–12, Goodman argues that the simple fact of making education voluntary may, in itself, be an improvement over the current system. He argues that freedom of growth is impossible without intrinsic motivation and that such motivation is stifled by forcing students to attend school. Goodman points to schools like Summerhill (modeled on A. S. Neill's theories), where the voluntary nature of the schools may tempt students to skip school but where their natural curiosity will draw them back to school, now eager to learn.

Alternatives to compulsory education need not be limited to schooling of the bricks and mortar variety. Goodman, as an inhabitant of New York City, found the city itself to be highly educative and thought that limiting education to the inside of four walls meant the loss of numerous educational opportunities. Teachers could simply walk students around the city where architecture, city planning, city history, factory production, and so on could be discussed in their natural environment. In a similar vein, Goodman also proposed (modeling off the GI Bill) giving the money that would have gone into the school system directly to students, who could use it for the educational purpose of their choice, which could include travel, scientific projects, or participation in experimental schools.

Anthony Giambusso

See also Alienation; Neill, A. S., and Summerhill; Youth Culture, Theories of

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GREAT BOOKS

See Essentialism, Perennialism, and the "Isms" Approach

GREENE, MAXINE

The educational philosopher Maxine Greene (1917–) has spent her long, full life defying categorization and evading labels. At the risk of "boxing her in," it is safe to say that she is known primarily for her work in existential philosophy and aesthetics education. In fact, she was one of the earliest philosophers of education to devote a full book to the relationship between existential themes and educational theory/practice. Her volume *Existential Encounters for Teachers*, published in 1967 when she was an associate professor at Teachers College (TC), Columbia University, and editor of *Teachers College Record*, broke new ground, in both its content and its form. In this work, Greene introduces the teacher to the complexity of her role in the modern world through encounters with the writings of 19th- and 20th-century existential philosophers. Organized around themes of "The Individual," "Others," "Knowing," "Choosing," and "Situations," these encounters provoke the teacher to think more deeply about her particular identity and situatedness, about her responsibility to be authentic with her students, and about her possibilities for choosing for herself and for acting in the world. These themes have continued to inform Greene's work and life in profound ways for the past half-century.

Greene's own situation in the early 1960s as a young, Jewish, middle-class, intellectual female shaped and was shaped by her choices as she found her way in academia. Not unlike other women of her generation, gender bias and institutional sexism were her uninvited companions as she made

career decisions—including her choice of a PhD program. As she recounts in the video documentary *Exclusions and Awakenings: The Life of Maxine Greene* (Hancock, 2001), Greene needed to select a graduate program that would allow her to take classes while her young daughter, Linda, was in school. New York University's School of Education had the day schedule that she needed. It was at New York University that Greene studied the philosophy of education with George Axtelle, even though her major as an undergraduate at Barnard College was English and her aspiration was to write novels.

After completing her doctorate in 1955, Greene taught at Brooklyn College and Montclair State College in New Jersey prior to being hired by TC in 1965. TC has been her academic home since then, where she is now the William F. Russell Professor Emerita in the Foundations of Education. However, as Greene has noted, TC did not always feel like "home sweet home." As one of the first women of her generation to venture into the field of philosophy of education, Greene faced considerable resistance from her male colleagues. In fact, she came to TC, so to speak, through the back door—through the editorship of *Teachers College Record* and the English Department, *not* philosophy of education. Evidently, her work was considered "too literary" for the field, an interpretation that she saw as code for "too feminine." Within a few years, however, she proved herself worthy of an appointment in TC's Department of Philosophy and Social Sciences, where she continued to teach well beyond her retirement. In fact, she offered courses in her Fifth Avenue apartment as recently as 2012.

Theoretical Contributions

Existentialism, literature, and the arts are the threads connecting Greene's intellectual project. After publishing *Existential Encounters for Teachers*, Greene developed her existentially informed philosophy of education in her groundbreaking book *Teacher as Stranger: Educational Philosophy for the Modern Age*. In this volume, Greene (1973) challenges the teacher "to *do* [italics added] philosophy" (p. 6). For Greene, when one "does philosophy," one is enacting and embodying a critical consciousness that examines the world in which we live, including educational processes, practices, and institutions. Implicit in Greene's concept of critical existential philosophy, derived from the work of Jean-Paul Sartre,

is the commitment "to go beyond the situations one confronts and refuse reality as given in the name of a reality to be produced" (p. 7).

Refusing, going beyond, seeking wide-awakeness, choosing, and becoming are theoretical concepts and *actions* that inform Greene's signature contribution to the field of educational philosophy. Her unique imprint comes from her literary ability to embody these abstract concepts through references to literature, film, and other art forms. Honoring existentialism as well as John Dewey's pragmatism, Greene makes it possible for practitioners to understand her ideas as she makes meaningful connections to their own lives in classrooms. In fact, Greene is known worldwide for her lectures that subsequently become published essays. She can speak to teachers about lofty ideas, yet because these are grounded in lived experience, especially the lived experience of teachers and their students, these ideas tend to resonate powerfully with educational professionals. For example, her 1978 collection of lectures given between 1974 and 1977, *Landscapes of Learning*, addresses the concepts of *rationality*, *freedom*, *consciousness*, *wide-awakeness*, *praxis*, and *aesthetics* as they affect education and schooling. They are as relevant and accessible today, in the age of "No Child Left Behind" and "Race to the Top," as they were four decades ago when the back-to-basics movement dominated educational discourse.

One of Greene's most comprehensive books, *The Dialectic of Freedom* (1988), was an expansion of that year's John Dewey Lecture, presented at the meeting of the American Educational Research Association in New Orleans in April and, later that year, at TC. This book demonstrates Greene's intellectual reach as she brings into a coherent whole her mastery of critical, existential, and pragmatic philosophy together with history, multiculturalism, and the arts to show the complexities and contradictions of the American (educational) experience. Indebted to Dewey for an analysis of democracy and freedom, and for his commitment to the public good, Greene tells the stories of those who were thrust into the "underside of democracy." Her use of literature, film, and poetry to evoke the experiences of newcomers, freed slaves, and women is meant to show us the possibilities for freedom and community in a multicultural democracy.

Greene's work with the arts and education will perhaps be her most sustainable legacy. As the philosopher in residence for the Lincoln Center for the

Arts in Education for more than 30 years, Greene has offered public school teachers the educational and aesthetic theory, the artistic vocabulary, and the pedagogical skills to integrate meaningfully a range of cultural experiences in their classrooms. Greene's lectures and essays on education, the arts, and the social imagination have been collected in the volumes *Releasing the Imagination* (1995) and *Variations on a Blue Guitar* (2001).

It is her understanding and enactment of the *social* imagination that distinguishes her work from more traditional approaches to integrating the arts in education. For Greene (2001), the imagination can—and must—be employed in and for social contexts to "look at things as if they could be otherwise" (p. 122). Greene offers an invitation to *wide-awakeness*, to taking actions in situations that need changing. Hers is a philosophy of education intended for transformation—of our consciousness, our classrooms, and our communities. Her method of integrating the arts provides the openings and creates the spaces for *reimagining* the world without relying on dogmatic political ideologies or cultural stereotypes. Never too far from her roots in existentialism, Greene's work continues the search for meaning—for ways to connect our individual situatedness with and for the common good.

Wendy Kohli

See also Aesthetic Education; Critical Theory; Dewey, John; Educational Theory, Nature of; Phenomenology; Sartre, Jean-Paul

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H

HABERMAS, JÜRGEN

See Critical Theory

HABITS

The notion of habit has had its ups and downs in the social sciences over the past 150 years. Its use as a key concept dates as far back as Aristotle, who connected it with education. In this entry, a definition of habit is offered, and its cultural mode of acquisition or inheritance is explained and contrasted with biologically inherited instincts. It is proposed that all reason depends on habit; and furthermore, it is a key component of some prominent definitions of culture. The concept is also important from an evolutionary perspective, for overcoming mind–body dualism and dealing with the agency–structure problem in social theory. Thus, the concept has great importance for social science and educational research.

The Concept of Habit

In *The Politics*, Aristotle wrote, "But in fact men are good and virtuous because of three things. These are nature, habit or training, reason." He continued, "education by habit-forming must precede education by reasoned instruction" (Book VII, chap. 13). Aristotle also noted pertinently in his *Metaphysics* that the word *habit* had two meanings: '"Habit'

means a kind of activity" but in "another sense . . . 'habit' means a disposition" (Book V, chap. 20).

Confusion between the two meanings (behavior or disposition) persists today. Here, habit is defined as a culturally inherited disposition to engage in previously adopted or acquired behavior (including patterns of thought) that is triggered by an appropriate stimulus. It is "a more or less self-actuating disposition or tendency to engage in a previously adopted or acquired form of action" (Camic, 1986, p. 1044).

Habits are formed through repetition of action or thought. They are influenced by prior activity and have durable, self-sustaining qualities. Habits are the basis of both reflective and nonreflective behavior. They are economizers of scarce mental resources. If we had to deliberate fully on everything, then our reasoning would be paralyzed by the weight of data. Habits overcome this problem.

The concept of habit as a disposition was developed by a linked group of American pragmatist thinkers in philosophy, psychology, and economics. Among them, William James (1893) proclaimed, "Habit is thus the enormous fly-wheel of society, its most precious conservative agent" (p. 143). The institutional economist Thorstein Veblen (1898) wrote of "a coherent structure of propensities and habits which seeks realization and expression in an unfolding activity" (p. 390). As John Dewey (1922) put it, "The essence of habit is an acquired predisposition to *ways* or modes of response" (p. 42). A similar interpretation of habit as a disposition is found in the work of contemporary psychologists (Wood & Neal, 2007; Wood, Quinn, & Kashy, 2002).

Instinct, Habit, and Reason

By contrast, instincts are biologically inherited reflexes, feelings, or dispositions that can be triggered by specific cues. But (like habits) expressions of instincts can often be suppressed or diverted. There is clear evidence for some human instincts, such as reflexes in babies to clutch and suckle. It is beside the point to argue that acquired habit or socialization is much more important than instinct. But the importance of socialization does not deny the necessary role of instinct. Instincts are necessary for socialization to begin its work.

Brain imaging studies on human subjects show that the formation of habits involves a shift away from parts of the brain associated with conscious, declarative memory and goal setting (the medial temporal lobe and prefrontal cortex) toward areas associated with procedural memory and context-triggered responses (the basal ganglia).

Habits are vital to all thought and behavior. Rational deliberation relies on habits. In turn, instinct is prior to habit, habit is prior to belief, and belief is prior to reason. That is the order in which they have evolved in our human ancestry over millions of years. That too is the order in which they appear in the ontogenetic development of each human individual. That too is the order in which they are arranged in a hierarchy of functional dependence, where the operation of reason depends on belief, belief depends on habit, and habit depends on instinct. The lower elements are necessary but not sufficient for the higher.

As Charles Darwin noted, human rational capacities are built on subconscious mechanisms inherited from our prehuman ancestors. We retain instincts and unconscious mental processes that can function apart from our conscious reasoning. As some animal species developed more complex instincts, they eventually acquired the capacity to register reinforced behaviors through the evolution of mechanisms of habituation. In turn, on these mechanisms, humans built culture and language. Our layered mind, with its unconscious lower strata, maps our long evolution from less deliberative organisms. But when the human species evolved its capacity to reason, its dependence on instinct and habit did not decline.

Evolutionary Versus Mind-First Explanations

Much social science takes it for granted, or as true by definition, that "action" is motivated exclusively by reasons based on beliefs. This proposition is undermined by modern psychology as well as the evolutionary outlook offered by Darwinism. As noted by Benjamin Libet, experiments since the 1970s show that conscious sensations are reported about half a second after neural events, and unconscious brain processes are discernible before any conscious decision to act. This evidence suggests that our dispositions are triggered before our actions are rationalized: We contrive reasons for actions already under way. This apparently undermines explanations of human action wholly in the terms of reasons and beliefs.

But the folk psychology (Stich, 1983) that beliefs are the source of intentions, choices, and actions still dominates social science. These "mind-first" explanations of human behavior are unable to explain adequately phenomena such as sleep, memory, learning, mental illness, or the effects of chemicals or drugs on our perceptions or actions. Mind-first conceptions erect an unsustainable dualism or discontinuity between the mental and physical worlds, which is inconsistent with the fact of human evolution. Humans do act for reasons. But reasons and beliefs themselves are caused and have to be explained.

The habit-based perspective implies neither stasis nor lack of choice. As Dewey (1922) explained clearly, because of our engagement with diverse and changing contexts, we develop different habits of thought and action that sometimes come into conflict with one another. Such conflicts are opportunities for choice and change. Habit does not deny choice. On the contrary, the conflicting rigidities of different habits make choice inevitable.

Pragmatist and habit-based approaches overcome the Cartesian dualism of body and mind, which still pervades the social sciences. Intellect is not regarded as an independent and ungrounded causal power but as an emergent and active property of already-engaged dispositions and unfolding actions. The reality and importance of human intentionality and creativity is reconciled with the Darwinian evolutionary legacy and a philosophy of emergentist materialism (Bunge, 1980).

Conclusion

Once habit is seen as the foundation of preferences or beliefs, we can develop an enriched understanding of the interaction between individuals and institutions. Emergent institutions guide individual behavior. Individuals develop and reinforce habits consistent

with that behavior on which revised beliefs and preferences transpire. These revised beliefs or preferences lead to further actions and form more habits, which may affect institutions, and so on. This gives us two-way mechanisms of reconstitutive interaction from individuals to institutions and back to individuals.

The implications for social theory are profound, including a transcendence of the old debate between "bottom up" (methodological individualist) and "top down" (methodological collectivist) modes of explanation. In a full-fledged evolutionary view, causal influences have to be acknowledged in both directions. From an adequate evolutionary perspective, we have to understand how individuals are affected by social structures, as well as how structures are constituted by individuals. Habit is a crucial mechanism in both cases.

Geoffrey M. Hodgson

See also Dewey, John; Evolution and Educational Psychology; James, William

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HAPPINESS

What is happiness and why does it matter? What is the relationship between happiness and education? Should happiness be seen as a key educational aim, as some philosophers, teachers, and policymakers suggest? These questions are at the fore not only of much of philosophy and educational policy and practice but also of psychology, economics, sociology, neuroscience, and other domains. To resolve them may seem like an impossible task. "There is hardly a muddier concept [happiness] in the over 2000-year history of philosophy," says Kristjansson (2010, p. 300); Bruckner describes happiness as "an enigma, a permanent source of debates, a fluid that can take every form but which no form exhausts" (2010, p. 3). Watery metaphors abound, but progress can be made by reflecting on what happiness means to us as human beings and by clarifying basic concepts. This entry discusses various concepts of happiness, including the utilitarian concept of pleasure, the Aristotelian concept of flourishing or a good life, and the contemporary eudaimonic approaches. It then considers how a theory of happiness shapes our understanding of the goals and aims of education.

Two Concepts of Happiness

It is useful to start with the "original" concept. Children learn that happiness is an enjoyable experience that they want to prolong. It is contrasted with unhappiness, an experience they want to avoid, and subjective reports on both are normally taken seriously. If a child is lucky, her happiness is treated as a reason for action, though regrettably not (in all probability) an overriding one. In short, the original concept of happiness is hedonistic, polarized, subjective, and motivational. This concept underpins Jeremy Bentham's utilitarianism (1789), which sees happiness as pleasure, unhappiness as pain, and claims that these govern us in all we "do, say and think."

The original concept, often expressed as *feeling happy*, differs from the sense in which we say someone *is a happy person* or has *led a happy life*. The latter was important to ancient philosophers,

and Seneca (1932) expressed the problem well: "To live happily . . . is the desire of all people, but their minds are blinded to a clear vision of just what it is that makes a life happy" (p. 99). Happiness in this sense is something about which we learn by reflecting on our lives, our errors, and the limitations of the original concept. It is linked to Plato's idea of the examined life, and many philosophers (and more recently, positive psychologists) turn to Aristotle for guidance about its meaning.

The Aims of Education

According to Aristotle, eudaimonia (translated as happiness, well-being, flourishing, and a good life) is the ultimate end toward which we aim in whatever we do. In current idiom, it is a *thin specification* of this end, for its meaning is disputed. We generally agree that it is the most important thing in life; the philosophical task is to specify its meaning without, as Aristotle said, seeking more precision than "the subject matter admits of."

Aristotle is an objectivist; he never questions the scope for error in our thoughts about happiness. To thicken its specification is a task requiring reflective discipline, and Aristotle believed that "many" (the uneducated, the wicked, and the young) mistakenly characterize it as pleasure, honor, or wealth. The "wise" by contrast concur in the view that happiness means living and faring well. Living well means developing our distinctively human capacity for reason in moral and intellectual spheres; we cannot be happy without being virtuous or good. Thus, it would be wrong to infer (moving from the subjective to the objective perspective) that someone who gets away with her misdeeds and *feels* happy much of the time is a happy person.

There are no happy tyrants, on this view. Many people, preferring a subjective approach, would disagree, and here is a rich area of philosophical debate to which literature as well as argument may contribute much (Cigman, 2014). Most people nowadays also reject Aristotle's suggestion that happiness belongs within the framework of a complete life "or even beyond." Aristotle quotes Solon's "Call no man happy until he is dead" approvingly and adds (remarkably) that if misfortune befalls one's descendants after one's death, this will detract from the goodness of one's life as a whole. We may resist this thought, but the idea of embedding happiness in years or even decades, rather than moments or other brief periods, makes a certain sense.

We generally agree with Aristotle that a prerequisite of happiness is faring well. He sounds a note of realism (absent from the views of Plato and the Stoics) when he insists that the enjoyment of certain goods—reasonable health, modest wealth, and an adequate moral and general education—is important. Aristotle also resonates with modern intuitions by finding a role for happy *feelings* in the good life. The virtuous person, he says, takes pleasure in doing the right thing; although it is hard to be good, it is satisfying. This reinforces the idea (appealing to educators) that living virtuously is an aspect of living well.

This much seems clear: If happiness is to be an aim of education, we need a conception that is enriched by reflection and embedded in extended periods of time, if not an entire life. We want more for children than happy feelings and happy moments. Progressive educators such as A. S. Neill may have relied too heavily on the original concept, taking their cue from experiences that children enjoy and want to prolong and seeing these (too "precisely," in Aristotle's terms) as educationally motivational. Some philosophers of education have challenged these ideas; R. F. Dearden (1972/2010) argued that the "springs of action may be more complicated than a happiness-doctrine suspects" and "even anxiety can be facilitatory" (p. 82). Many teachers and parents would agree on this.

Scientific Approaches to Happiness

By identifying happy feelings as our governors in all we "do, say and think," and by introducing the idea of a "felicific calculus" that measures their intensity, duration, and other properties, Bentham provided a foundation for a psychology of happiness that many deem suitable for a scientific age (see Layard, 2005). The psychologist Daniel Kahneman's hedonic approach computes happiness in the Benthamite manner from a "dense record" of self-reported pleasurable and unpleasurable states. Positive psychology refines this, adding "life satisfaction" assessments and producing a composite conception of happiness (positive affect and life satisfaction) as subjective well-being. More recently, it has added a eudaimonic dimension, reflected in the title of Martin Seligman's 2011 book *Flourish*. Flourishing is Aristotle's objectivist concept, referring to the fulfillment of natural capacities. Human flourishing, unlike that of a tree or dog, involves virtue, and positive psychologists claim that they can measure this. *Can* virtue be measured? It is a

controversial question on which many philosophers have expressed doubts.

Subjective and objective approaches to happiness have been amply criticized. Few nowadays see happiness as synonymous with pleasure, for a life that ranks highly on a hedonic scale may be utterly pointless. Robert Nozick's "experience machine" thought experiment highlights the undesirability of a condition in which neurological stimulation (the notorious "brain in a vat") might create the *illusion* of a flourishing life. Few would be tempted by the prospect of limitless pleasure if the distinction between reality and illusion were entirely lost. Life satisfaction seems closer to what we mean when we call people happy, until we reflect that some are satisfied with limited or impoverished lives because they are ignorant, self-effacing, or oppressed. Eudaimonic accounts appear to resolve these difficulties, but many regard the idea of *contesting* a person's subjective sense of happiness, on the authority of science or philosophy, as unacceptably paternalistic.

Eudaimonic accounts have, at least, this to recommend them: They recognize that not all kinds of happiness are equally worth having. Criticizing Bentham, J. S. Mill insisted on this point when he argued that some pleasures are "higher" than others. It is better to be Socrates dissatisfied, he said, than a pig satisfied, as any competent judge who knows both will attest. This complicates the quantitative model, for "higher value" is hard, if not impossible, to compute.

Mill's competent judges are problematic. Any attempt to identify them would be infinitely regressive, and the elitist implications are offensive. This is, however, a pivotal moment for contemporary philosophizing about happiness. Like Aristotle, Mill understood that happy and unhappy feelings are not simply experienced; they are also evaluated, reflected on, and "learned about." Sometimes, as Friedrich Nietzsche emphasized, it is good to feel unhappy, and Peter Roberts (2012, p. 209) argues in this vein that suffering has "profound value for our development as human beings" and that education "should make us uncomfortable." If there are "higher pleasures," there are presumably "higher pains," and education could be a rich site for both.

Implications for Educational Theory and Practice

Education is an ethical practice, needing what Avishai Margalit (2002) calls a "literary picture": "We are the authors of our lives, and we had better make sure that they add up to something meaningful" (p. 134). It is arguable that recent educational policy has neglected this picture. The enhancement agenda (social and emotional learning, happiness lessons) tends to polarize positive and negative feelings, promoting the former and trying to inhibit the latter (Cigman, 2009). It asks "how children are" and returns gloomy statistical answers, aiming to reverse these through national interventions (Department for Education and Skills, 2005; Seligman, Randall, Gilham, Reivich, & Linkins, 2009). It is strongly influenced in the United Kingdom by Richard Layard's Benthamite philosophy; happiness ("feeling good"), says Layard, *can* and *should* be learned early in life. Pascal Bruckner (2010) describes this as a perversion of the Enlightenment's "beautiful idea: that everyone has the right to control his own destiny and to improve his own life" (p. 5). Is he right? Is there now a *duty* to be happy, intrusively pursued through education? Many believe this to be the case, and the need to reflect on such questions could not be clearer. Instead of drowning in watery metaphors, this entry aims to provide a rudimentary map.

Ruth Cigman

See also Aristotle; Mill, John Stuart; Neill, A. S., and Summerhill; Positive Psychology and Education

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Hegel, Georg Wilhelm Friedrich

Few thinkers in the history of Western philosophy
are as important or as contested as G. W. F. Hegel
(1770–1831). Slavoj Žižek has argued that there
is a unique philosophical moment in the West in
which philosophy first appears in-and-for-itself, or
in which it rises to its own self-consciousness. This
is delineated by Immanuel Kant's *Critique of Pure
Reason* (1968) and Hegel's death (1831); philoso-
phy before and after this, he says, is only preparation
and interpretation, respectively. Hegel taught both
in schools and in universities while writing his two
great works, the *Phenomenology of Spirit* and the
Science of Logic; many of his other books consist
of lectures given at the University of Berlin between
1818 and 1831. The range of Hegel's work—across
aesthetics, law, religion, the state, logic, epistemol-
ogy, and metaphysics—and the abstract, difficult,
and sometimes apparently paradoxical nature of his
prose make conducting a short survey precarious.

Since his death, at least two schools of interpre-
tation have sprung forth: *Right-wing Hegelianism*
has followed through with Hegel's claim to have
realized the absolute, or absolute truth, in the form
of a broadly Christian philosophy; while *left-wing
Hegelianism*, to which the young Karl Marx sub-
scribed, absorbed Hegel's dialectical critique of mod-
ern civil or bourgeois society. Two French thinkers
in particular, Alexandre Kojève and Jean Hyppolite,
reintroduced the *Phenomenology* into the existen-
tial climate of France in the 1930s and beyond.
Foucault, Deleuze, and Derrida, among others who
were to be influential in the closing decades of the
20th century, were taught by Hyppolite.

Hegel and the End-of-History Thesis

One topic within educational theorizing above all
others implicates Hegel as a theorist of a largely dis-
credited notion of modernity. The now infamous
"end of history" thesis, as discussed most recently
by Francis Fukuyama, argues that Western liberal
democracies are the endpoint to which history has
always been leading. Fukuyama states that Kojève
in particular claimed somewhat intransigently that
history has ended, or is coming to an end, and that
observing it is now clear that the future belongs not
to the exploitative master in the world but to the
working slave. Both Kojève and Fukuyama lean
heavily on Hegel's idea of mutual recognition (from
the *Phenomenology*), where all persons recognize
themselves as identifying each other (such mutual
recognition is seen by some to offer a model for
the homogenization of human freedom across the
world). Kojève also highlighted the seemingly coun-
terintuitive claim, found in Hegel's analysis of the
master–slave relationship in the *Phenomenology*,
that the master is really the slave because of his
dependence on the slave, and the slave is somehow a
master because he is true to himself; the implication
is that the slave is potentially freer than the master.
In a world where masters and slaves remain, Hegel's
study is still relevant, offering a powerful philosoph-
ical template for the critique of one-sided author-
ity and power wherever it appears (including that
between teacher and student).

The association of Hegel with the end-of-history
thesis has encouraged many theorists in education
and elsewhere to see Hegel as the archetypal mod-
ern, Western, White, male, rationalist representative
of the imperialist view that "West is best." There is
ample evidence in Hegel to support them, ranging
from his work on the modern state, to his descrip-
tion of women as plants, and of Negroes as a race
of children immersed in a state of uninterested
naiveté. But as Hegel realized, those who condemn
as an imperialist master any thinker who assumes a
position of authority over those deemed less enlight-
ened are repeating precisely that which is being con-
demned. It is also the case that Hegel understood his
own complicity within the dominant social relations
of 19th-century Europe, and he explicitly described
not only how his own work carried the shape of
those relations but also how his work would be
interpreted as if it had overcome such complicity—
which it had not.

The Dialectics and the *Aufhebung*

It is well known that at the heart of Hegel's philo-
sophical system lies a triune model of human expe-
rience or consciousness. Ordinary consciousness
accepts a taken-for-granted reality; dialectical con-
sciousness questions and negates that reality; and

philosophical consciousness comprehends the whole of this experience. Few educators would want to oppose a critical consciousness. The controversy in Hegel then is the relationship between critical dialectical consciousness and philosophical consciousness. If dialectics negates our taken-for-granted view of the world, it can be destructive, even violent, for it pulls the rug out from under our feet. It robs us of the certainties which held our world together without seemingly putting anything back in their place. We are left looking down at a gaping abyss where the certainties of life have disappeared.

The key controversy in Hegel begins at this point. How, if at all, does he protect us from this abyss? Right-wing Hegelians call on the religious absolute, and left-wing Hegelians on the value of the critical consciousness in itself. But both camps need to engage with the Hegelian concept that addresses the abyss and which holds all of Hegel's philosophy together, namely, the *Aufhebung*. Seeking help in a dictionary here is not fruitful. The dictionary will tell us that the verb *aufheben* means to abolish, to raise up, and to preserve, while *Aufhebung* describes this process. But abolishing, raising up, and preserving seem to contradict one another. Understanding what Hegel makes of this contradiction is the most important step in appreciating his whole philosophy.

One can approach this issue in many ways, but here are two. First, when we learn something, it is said that we leave behind previous thinking and move on to new thoughts. The new thinking overcomes the old, and the new provisional truth overcomes the old defunct error. This assumption of overcoming error is carried in the idea of *enlightenment*. But overcoming error suggests that it does not also preserve error, and preservation is part of what the *Aufhebung* demands. It is in *philosophical experience as learning* that the *Aufhebung* carries all three meanings of abolish, raise up, and preserve. This is because learning about philosophical experience as an experience of philosophical learning has a unique significance. When learning learns about itself—something Aristotle ruled out in the *Metaphysics*—it overcomes itself and preserves itself. Learning changes and remains itself in doing so. Understood in this way, the *Aufhebung* is fundamentally an educational concept, and it announces Hegel's philosophy as a distinctive, seminal modern philosophy of education.

Second, one might agree that the *Aufhebung* is a continuing experience of learning but still question how Hegel would describe *Aufhebung* as

in any sense *absolute*. What we have to realize is that Hegel is trying to reeducate us about how we should understand the very idea of truth. Following Socrates's lead more than 2,000 years earlier, Hegel holds that contradiction—for example, that between abolishing and preserving—far from being a sign of error, is really a sign of truth. This is where analytical philosophy and Continental philosophy part company. Analytical philosophy regards contradiction as indicating error, whereas Hegel finds contradiction to be truthful when it reflects the difficult relationship that thoughts have to their objects. This is what makes Hegel so difficult to read, because his logic is deliberately contradictory; but at the same time, it is absolutely rigorously contradictory—contradiction is the rational and spiritual basis of his whole science of logic.

To put this in another way, for Hegel, thought cannot understand the concept of truth without thought getting in the way, or in Hegelian language, thought inescapably *mediates* everything it thinks, including truth. Here, reason threatens to slide down the slope of infinite regress, unable to resist mediation ad infinitum; this leaves us with something similar to what Max Horkheimer and Theodor Adorno called the *dialectic of enlightenment*. So the crucial question here is this: Does mediation mean that thought prevents us from ever knowing the truth, or does it make it possible? More philosophically, is there truth in itself, or is truth in itself always unavoidably just truth for us who think about it? More colloquially, is truth objective or subjective?

Hegel's answer to this question is as simple as it is powerful and can be illustrated with the following example. Allan Bloom said in 1987 that the one thing every university tutor could be sure of was that most students will believe that truth is relative and not absolute. Absolutism is a dogma with colonialist, imperialist, gendered, racist, and much other cultural baggage. One should not force one's truth down someone else's throat. Indeed, Hegel says as much in the shorter *Logic* (§23), stating that no one can think for another person any more than one can eat or drink for another. Hegel's response to this challenge of absolutism is direct. How does a student know so much about what truth is, to be able to know so definitively what it is not? To say that mediation is *not* true involves the prejudgment that one knows what truth is. So does this leave one with or without truth? Here, Hegel asks only for integrity in the face of the dilemma. If negation (or mediation) is ubiquitous and unavoidable, if it is universal,

then perhaps this makes a better claim for truth than any of one's presuppositions about what truth is or is not. The upshot is that for Hegel, universality lies in the thinking, or mediation, of truth.

But even if this is so, what difference does this really make to life as we live it? Is such thinking not exactly the kind of scholastic rarefied knowledge that the humanists so lamented in the Renaissance? How can one bring such philosophy down to earth? For Hegel, the problem is the opposite. In the *Phenomenology* (§8), he suggests that there was a time when the gaze of the Western individual needed to be brought down to earth, but presently, the need is the opposite: to raise our impoverished spirit back to something more than the worldly things that demand our attention. Few Western philosophers have put the truth of such a difficult education so firmly at the center of their whole philosophy as Hegel has done.

Influence on Education Theory

How is Hegel currently shaping educational debates? Much recent educational theory is "postfoundational." This means that it holds to a pluralism of values and truths above any dogmatic claims for grand narratives or overarching ideas that are timeless and universal. This perspective tends to see Hegel as representing totality and absolutism over openness and relativity. A notable exception is the reading given by Žižek, which finds Hegel never closing down or resolving thinking in anything that could be final. Indeed, Žižek's Hegel holds that even the self is never transparent to itself and always evades capture by the understanding. For Žižek (and for the author of this entry), the postfoundational readings that see totalitarianism in Hegel fail to take account of the contingency—the lack of ground—that Hegel understands he is condemned to work with by the times in which he lived and in particular by dominant social relations. It is the case that in Hegel, the absolute is always trying to reeducate us philosophically about the subjective nature of absolute truth and the absolute nature of subjective truth, a contradiction which Hegel and the absolute refuse to abandon.

Educational theory that is broadly Marxist, including the Frankfurt School of Critical Theory, has largely ignored the significance of the Hegelian absolute for fear of being associated with the right-wing Hegelianism of absolute spirit. At best, they are content to decapitate the absolute or the

Aufhebung from the dialectic, and while this leaves a very powerful tool for social and political critique, from Hegel's point of view, it treats as optional the significance that dialectical thinking has for itself.

In addition, Hegel's philosophy gets mentioned in relation to the educational theory of *Bildung*, but often only one sidedly. It is true that Hegel saw *Bildung* as an education for learning the value of service to the objective spirit of the state. But the key here again is what is meant by learning. *Bildung* in Hegel is the representation of philosophical learning as a "culture." Culture in Hegel is the sphere of everyday life where we live out the many different ways in which we are exposed to the contradictions of the *Aufhebung*; for example, where openness opposes absolutism, where the subjective opposes the objective, or where man contradicts God. Everything that involves a human being trying to represent himself or herself within or without truth is a culture; and it is a culture, in Hegel's sense, precisely because this is the site of the contestation between truth and nontruth. Hegel's notion of culture offers educational thinkers and practitioners a concept of their own work, their own struggles, difficulties, and contradictions, as the lived truth of their own learning.

What of the future for Hegelian philosophy and educational theory and practice? Žižek has argued that Hegel, as the philosopher of modernity, remains the most relevant thinker in responding to the troubled times afflicting modern Western-style capitalism on a global scale. But seeking a return to Hegel here is ambiguous because in effect modernity has never left Hegel. His philosophy remains the template for trying to grapple with its contradictions. The many still-influential standpoints of postfoundationalism show signs of their own exhaustion; in feminism and in postcolonial studies, the dialectic of enlightenment is emerging in which the champions of the oppressed are gloomily forced to account for the mastery of their own standpoint. Here is the culture of the post-men and post-women; a culture that is already Hegelian. There is no telling how this dialectic of enlightenment will be comprehended within the cultures of cultural studies, but Hegel stands ready to help in comprehending these unavoidable aporias (puzzles that lead to incompatible or conflicting resolutions) as philosophical experiences of human learning. If such truthful learning is comprehended as an end in and for itself, so be it. If not, culture will continue to eschew its own educational significance.

Hegel will also continue to haunt discussions about God and freedom. Just as God returned to Zarathustra in Book IV of Nietzsche's tale, so God returns to modernity in the broken freedoms of Western society. One of Hegel's most challenging thoughts is that the idea of God and the idea of freedom share the same origin in social relations. Religion in Hegel is the way people represent to themselves their lack of freedom. So the Christian God is the representation of one's subjectivity in relation to the universal, reflecting the lack of unity between them and the obstacles to any mending of this brokenness.

Finally, there remains the thorny issue in Hegel of world spirit. Since the Stoics in antiquity, the idea of cosmopolitanism has held the imagination of many thinkers—of a world which is united, embracing fundamental human principles of justice and peace. But such a vision has itself been criticized as a form of imperialism, in that cosmopolitanism is really only Western ideals pushed across the globe. Hegel's notion of world spirit is seen by some to be the most pernicious example of this imperialism. It *is* the case that global capitalism has produced a world spirit—but reading Hegel carefully can open up, not close down, ways of criticizing just this kind of imperialism.

As long as modern educational theory is shaped by the social relations of private property, Hegel's critique of the universality of such relations, and of the complicity of life and thought within them, will continue to be relevant and vital.

Nigel Tubbs

See also *Bildung*; Critical Theory; Dewey, John; Foucault, Michel; Marx, Karl

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Heidegger, Martin

Martin Heidegger (1889–1976), a German philosopher, is best known for his writings on phenomenological ontology, which provided a revolutionary account of human existence and the history of metaphysics, which he provocatively called "the history that we are." Even though Heidegger never formally developed a philosophy of education, it is not wrong to say that he had two of them. The first relates to what I will refer to as "the task of selfhood," which Heidegger develops in his 1927 magnum opus *Being and Time.* The second relates to what this entry will refer to as "ontological education," which he develops in a variety of writings from his later philosophy, but especially in his 1940 essay "Plato's Doctrine of Truth" and his 1951–1952 lecture course *What Is Called Thinking?* In both cases, Heidegger understands education to involve (1) turning away from the everyday world, (2) undergoing a transformative experience of liberation and self-recovery, and (3) returning reflexively to the everyday (one's projects, roles, and the entities of one's environment) with a new understanding of oneself and one's world.

Genuine education for Heidegger (1998c) is always emancipatory. As he says in his famous essay on Plato's cave allegory, "Real education lays hold of the soul itself and transforms it in its entirety by first of all leading us to the place of our essential Being and accustoming us to it" (p. 167). This transformative return to the self, in both of Heidegger's philosophies of education, involves the liberation of oneself

from forces of resistance. In the task of selfhood, resistance comes from "the they" (*das Man*), which encourages conformity and discourages individuality. And in ontological education, resistance comes from the metaphysics of one's age, which shapes our thinking so profoundly that we cannot help but see everything, ourselves included, as resources awaiting optimization. We see nature, for example, as little more than "a giant gasoline station" (Heidegger, 1966, p. 50).

The task of selfhood in *Being and Time* is designed to awaken us from the tranquil but inauthentic lives we lead under the influence of *das Man* and to reconnect us to the everyday world of our concerns with a new appreciation for our freedom and a resolute acceptance of the existential responsibility it entails. This kind of education reacquaints us with ourselves as finite, self-creating beings. In contrast, the purpose of ontological education in Heidegger's later writings is to help us leap over the wall of metaphysics and overcome nihilism. This second kind of education reacquaints us with ourselves as world-disclosing beings and accustoms us to a world that is conceptually inexhaustible, fundamentally mysterious, and aglow with "divine radiance." Ontological education, then, like the task of selfhood, culminates in an enlightened recovery of one's Being and the Being of the world. Its aim is nothing less than the reenchantment of the earth.

The purpose of this entry is to explain the details of these separate but related ideas about the essence of education.

The Task of Selfhood

Heidegger's philosophy of education in *Being and Time* is best understood as a special kind of philosophical perfectionism, the conceptual foundations of which derive from Aristotle. In *Being and Time*, Heidegger provides an account of (a) what makes human beings distinctive among beings, (b) what it means for humans to flourish, and (c) how human flourishing, what Aristotle called *eudaimonia*, is a product of becoming what one is in spite of the contrary education one receives from *das Man*.

What makes us distinctive, Heidegger (1962) says, is that our Being is an issue for us. "*Dasein* [the human being] is ontically distinctive in that it *is* ontological" (p. 32). We are unique among beings because we have an understanding of being, and because, for us, Being is an issue. It is both (a) a constant source of wonder—we ask why there

is anything at all instead of nothing—and (b) a task—being human requires that each one of us makes self-creating choices. For Heidegger, we *are* what we choose. We don't just exist, like rocks and plants; we aren't simply given an essence. We are choosing beings, stretched through time, open to a past and a future, and always faced with the task of selfhood. Who we are is who we are not yet (p. 287). "The most primordial and ultimately positive way in which Dasein is characterized ontologically" (p. 183) is as "being-possible" (*Möglichsein*).

This is what Heidegger means when he says we *are* ontological. We don't exclusively understand Being from the theoretical point of view, as the philosophical tradition has always supposed. We also *embody* an understanding of Being and literally live answers to our questions about the sorts of people we ought to be. Sometimes, we live those answers consciously and deliberately; other times— more often, Heidegger would say—we make world-shaping, self-creating choices without thinking freely about our possibilities and taking ownership of ourselves. To be human is to take a stance on who and what we are (Am I a teacher or a lawyer, a husband or a single man?) and to be defined and shaped by that stance. The key question is whether (a) we define ourselves consciously, deliberately, and with a passionate commitment rooted in a profound confrontation with our mortality, or (b) we are simply doing what one does and, as if sedated, going with the flow of life: believing what "they" believe, living as "they" live, and valuing what "they" value.

Two pieces of Heidegger's philosophical perfectionism should be relatively clear at this point. First, we are ontically distinctive because we are ontological: For us, Being is a task that involves choices, as well as a source of wonder that demands reflection. Second, we can make our self-creating choices consciously or unconsciously. If we make them unconsciously and live according to ideas that are not our own, we fail to become authentic selves. We don't really take up the task of selfhood but, instead, flee from it. Heidegger (1962) calls this kind of failure "falling" (p. 219), and he suggests that it characterizes most of us most of the time: "Everyone is the other, and no one is himself" (p. 165). On the other hand, if we choose consciously between the possibilities open to us, and independently of the tyranny of custom, we can complete the task of selfhood and fully become what we are. Heidegger calls this relationship with our possibilities authenticity, and he intends for us to see that it is the *practical* fulfillment of our being.

Aristotle's moral perfectionism tells us that human beings are distinctive because they are rational and that flourishing consists in reasoning well, especially in the context of theory (*Nichomachean Ethics*, Book I, chap. 8). Heidegger's (1962) development of this idea is to say that we are distinctive theoretically *and* practically. On the one hand, he agrees that human beings are perfected, or fulfilled as what we are, through philosophy (pp. 33, 96). But on the other hand, we are also fulfilled practically, that is, through a kind of choice making that is done in the light of death, and done resolutely. "Dasein becomes 'essentially' Dasein in that authentic existence which constitutes itself as anticipatory resoluteness" (p. 370). Anything short of authenticity, on this view, is a failure to flourish because it doesn't involve making free choices or overcoming "the dictatorship of the one [*das Man*]" (p. 165).

For Aristotle, human flourishing is characterized by reasoning well. For Heidegger, human flourishing is partly constituted by completing the task of selfhood in light of one's mortality. Death makes us anxious, and anxiety (*Angst*) is transformative and liberating because it is illuminating. In *Being and Time*, Heidegger is careful to distinguish *Angst*, which is about the burden of living a human life, from the kind of anxiety that we feel over an upcoming test or a difficult conversation. *Angst* is more rare and more profound than these everyday forms of anxiety. We feel it when our worlds collapse, that is, when our projects and roles—all of the things that shape our identities—no longer seem to matter. In these moments, it is as if the ground has dropped out from beneath our feet. The world we had taken for granted, the world of our everyday concerns, slips away from us. Suddenly, the familiar seems unfamiliar, and the ordinary feels uncanny.

In these moments, we continue to exist as "being possible." We go on projecting ourselves into an open future, but we project ourselves on a world and into an identity in which we no longer feel at home. Heidegger (1962) calls this experience "death" (p. 307), and he suggests that through it we encounter the structure of our being. We realize, in a practical way, that we are self-creating beings who enjoy meaning and value as a by-product of our choices, and in proportion to the passion we invest in them.

> With Dasein's lostness in the one . . . Dasein makes no choices, gets carried along by the nobody, and thus ensnares itself in inauthenticy. This process can be reversed only if Dasein specifically brings itself

back from its lostness in the one. . . . When Dasein thus brings itself back from the one, the one-self is modified in an existential manner so that it becomes authentic being-one's-self. This must be accomplished by making up for not choosing. But "making up" for not choosing signifies choosing to make this choice, deciding for an ability-to-be, and making this decision from one's own self. In choosing to make this choice, Dasein *makes possible*, first and foremost, its authentic ability-to-be. (p. 312)

Death clarifies our lives for us, allowing us to distinguish between what is trivial and unimportant and what has lasting significance. We return to ourselves from *das Man* with a new appreciation for our freedom and a new ability to embrace and own the task of selfhood.

This experience of existential death and rebirth constitutes a form of education because it "lays hold of the soul itself and transforms it in its entirety by first of all leading us to the place of our essential Being and accustoming us to it" (Heidegger, 1998c, p. 167). In fact, it is hard to imagine how anything else could fit this description of "real education" (Heidegger, 1998c, p. 167) any better: We lose the world in death, rediscover ourselves in resoluteness, and then freely return to our projects with a new capacity for ownership of who and what we are. We are transformed in the process and led back to the place of our "essential being." We are led back to and given an opportunity to repossess ourselves.

Ontological Education

Heidegger's second philosophy of education also involves a transformative return to the self, although in a very different way from the task of selfhood in *Being and Time*. It is easiest to see this by thinking about Heidegger in connection with Nietzsche, who once said famously that the role of the philosopher is to be "a gadfly on the neck of man" and act as humanity's "physician." This medical metaphor applies to many of modernity's most influential thinkers—for example, G. W. F. Hegel and Karl Marx, Søren Kierkegaard and Friedrich Nietzsche, Rainer Maria Rilke, Sigmund Freud, Franz Kafka, and the Frankfurt school thinkers—who diagnosed the modern world with a cultural or spiritual "sickness" and presented their own philosophies as a corrective therapy. Heidegger's "later philosophy" can be understood as fitting into this tradition. Modernity, he says, is the age of the "world's night."

It is an era of destitution and decline. The function of his "ontological education" is to help us recognize the symptoms and causes of our condition and to provide us with a therapeutic philosophy that can heal us.

What is revolutionary about Heidegger's critique of modernity is the role he assigns to *metaphysics* in causing the most pressing problems of our time: "the loss of the gods" (the disenchantment of the earth), homelessness (the devaluation of the highest values), and the "violence" of modern technology (environmental degradation, factory farming, vulture capitalism, sweatshop labor, wars for oil, etc.). Heidegger explains these "symptoms" as products of our metaphysical thinking about Being, which mistakes *one* way of disclosing reality for *the* structure of reality itself, and so misses "the truth of Being." We will heal ourselves from the affliction of our age, Heidegger (2003) argues, only if we manage to overcome metaphysics (p. 67) and relate to our world and to ourselves without being blinded by the reifying categories of what he calls "ontotheology," which we experience as "enframing." But what exactly is ontotheology, and why is it a problem?

An ontotheology is any attempt to think about Being ontologically and theologically at the same time (Heidegger, 1998b, p. 340). We think about Being ontologically when we try to understand the most basic "stuff" that makes entities what they are. The pre-Socratic philosopher Thales (ca. 624 to ca. 546 BCE) thought it was Water. Plato thought it was Forms. Nietzsche thought it was the Will to Power. On the other hand, we think about Being theologically any time we try to understand reality from a God's eye point of view; that is, from what Thomas Nagel calls "a view from nowhere," so that we can grasp the structure of the whole and the way entities exist: how they are arranged with respect to each other, how they came to be, and whether they are organized by laws or purposes.

Anaximander (ca. 610 to ca. 546 BCE) was the first "theological" thinker, then, because he speculated that the universe was governed by a cycle of opposites. Plato's forms divided Being into degrees of reality, so that entities are more or less beautiful, more or less good, more or less just, etc. Aristotle's hylomorphism provided the West with its first robust ontotheology, which modern science has replaced with an ontotheology of its own, nonteleological naturalism, the details of which undergo periodic changes as science makes progress, but whose ontotheological structure is unchanging.

Metaphysics represents the beingness of beings in a twofold manner: in the first place, the totality of beings as such with an eye to their most universal traits . . . but at the same time also the totality of beings as such. (Heidegger, 1998a, p. 287)

In passages like this, Heidegger wants to underscore that *as ontology* metaphysics asks what entities are in general and what entities share in common. And *as theology*, it attempts to identify and define the nature of the whole (for Hegel, God is the whole structure of beings, not an individual entity), which it sometimes, though certainly not always, considers divine (Nietzsche's atheistic "theology" is Eternal Recurrence). Ontotheology, then, is the interior structure of our theories about Being.

The problem with ontotheology is that Being is conceptually inexhaustible. It always exceeds the categories we use for understanding it, and so it is not reducible to the Being of entities. This means that *any* ontotheology, whether ancient or modern, is an incomplete and partial representation of Being, which is *both* what is revealed to us by our ontotheological categories and what is ineluctably concealed by them. In fact, any understanding of Being is incomplete and *incomplete-able*. And yet every ontotheology tries to provide closure on the question of Being, focusing exclusively on the Being of entities. Every ontotheology is therefore forgetful of Being as such. For example, as long as Being appears to us as an intelligently designed, good, and teleologically ordered creation of God, it is concealed as Eternally Recurring Will to Power, and vice versa. Even a metaphysical theory like Plato's, which posits a Good "beyond being," nevertheless treats the Good as a special kind of entity, and so remains ontotheological.

One might be tempted to think that this is all very academic and that it has no bearing on life as ordinary people live it. But Heidegger insists that ontotheology always *matters* because it "grounds an age" (Heidegger, 1993, p. 115) by serving as the "lenses" through which we understand the world and ourselves. In fact, we embody, individually and collectively, the understanding of Being articulated by the ontotheology of our time.

Our own age is nihilistic because our ontotheology (Heidegger thinks it is Nietzsche's picture of Being as Eternally Recurring Will to Power) has disenchanted the world and thereby reduced Being to "a vapor" (Heidegger, 2000, p. 42), the meaningless aggregation and disaggregation of forces. That is how we see the world, deep down. That is how *we*

understand Being. For evidence, Heidegger would simply have us look at the way we live, how we treat one another and ourselves, how we treat the earth, and how we think. We understand everything as lacking intrinsic value. For us, Being is a storehouse of resources, what Heidegger calls "standing reserve" (Heidegger, 1993, p. 23). The world revealed to us as mere resources is what Heidegger means by "enframing," and enframing (*das Gestell*) is the common thread linking the excesses of cosmetic surgery and the plundering of the earth, the neuropharmacology boom and the rise of vulture capitalism, etc. Each of these social and political problems has a common ontotheological root.

The purpose of ontological education is to enable a relationship with the world that happens outside the confines of ontotheological thinking. Heidegger's (1966) goal, in turning to art and poetry in his later philosophy, is to remove the "lenses" of ontotheology and replace them with a receptive openness to the forgotten but inexhaustible effulgence of Being. Heidegger calls this postmetaphysical relationship with the world "openness to the mystery" (pp. 12, 21, 55, 56, 92), and his hope is for us to relearn "to dwell" in the world and to cultivate an open relationship with Being, one that lets entities be what they are by constantly freeing them to be more than what they have been.

Like the task of selfhood in *Being and Time*, ontological education involves (a) turning away from the everyday world (in which entities show up as resources), (b) a transformative experience of liberation (from the reifying confines of ontotheology) and self-recovery (as beings who are in a dynamic, world-disclosing relationship with a mysterious, conceptually inexhaustible reality), and (c) a reflexive return to the everyday that is characterized by receptivity and openness to the unbidden rather than mastery and control.

Both in the task of selfhood and in ontological education, real learning occurs when the student returns to the place where she started and got to know it for the first time.

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See also Aristotle; Kant, Immanuel; Phenomenology; Technology and Society, Critiques of

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HERBART, JOHANN F.

Johann Friedrich Herbart (1776–1841), a German philosopher and a student of philosopher Johann Gottlieb Fichte, is considered a foundational figure in the history of educational philosophy. Over the past two centuries, since the time of his major work on education *The Science of Education* (*Allgemeine Pädagogik*; 1806), his thinking has had a profound influence on educational philosophy and educational reform worldwide. This entry thematizes three central components of Herbart's philosophy of education: his twofold concept of education and its connection to his practical philosophy; his concept of perfectibility; and his notion of pedagogical tact, especially as it relates to teacher education.

Concept of Education

Herbart's concept of education draws out the moral meaning of education. For Herbart, education aims toward the self-determination (*Selbstbestimmung*) of the learner. His notion of self-determination refers to the ability to critique one's own self-interested ideas and motives for action, as well as the values and norms that govern society. The concept of a person who is self-determined, or autonomous, is not to be conceived of as one who is individualistic

and lacking a connection to the social world. Rather, self-determination for Herbart connects directly to one's ability to make moral judgments, judgments that reflect one's recognition of others. As Herbart (1804) puts it in his influential essay "The Aesthetic Revelation of the World," morality is not simply the highest but the *whole* purpose of education.

From a historical perspective, Herbart's concept of education opposed notions of education of the *ancien régime*, which assumes that the next generation's future is decided by the previous generation, that is, by tradition and socialization. On Herbart's model, it is not the role of education to guide learners into an existing moral order or make them dependent on external authority.

For Herbart, the categorical imperative formulated by Immanuel Kant (1724–1804) is central to understanding morality. The categorical imperative expresses a judgment of oneself according to principles of universality and humanity. It thus captures for Herbart what it means to judge oneself in light of one's recognition of and respect for others. But, going more in depth than Kant, Herbart asks the question of how the educator can help a learner learn how to make judgments for himself or herself about what is good and right to do in a given situation.

Herbart's answer to this question is not a learner-centered model, where the teacher is a mere observer, nor is it a teacher-centered transmission model. Rather, he develops a concept of education that accounts for a certain kind of intersubjective relationship between teacher and learner, which he sees as essential for cultivating the learner's ability to think, make independent judgments, and become what he terms a *multifaceted individual*. A multifaceted individual is someone who is interested in the differing perspectives, new ideas, and new objects that he or she encounters.

Herbart develops a twofold concept of what he calls "education proper" that outlines the educator's task in educating another person. The educator's task is defined using two terms: *educative instruction* and *moral guidance*. The first term, educative instruction (*erziehender Unterricht*), describes the educator's task in cultivating the learner's knowledge and ability. For Herbart, instruction has the aim of introducing learners to multifaceted forms of knowledge and human interaction, so that learners can understand differing perspectives and expand their interests beyond the confines of everyday life. Herbart thus conceptualizes the learner's path as a

series of stages according to the principles of a theory of association. In turn, the educator's task is to support the learner to steadily and continuously associate known objects with closely related new objects and then reflect on the process of making these new associations. Herbart's followers, the Herbartians, simplified and standardized this method of teaching, which came to be widely known outside of Germany, including in the United States, as the "Herbartian steps."

The second term, *moral guidance*, describes the educator's role in supporting the learner's moral development. Herbart's term for moral guidance is "*Zucht*," which comes from the German verb "*ziehen*," meaning *to pull forth*, and is associated with the latin "*educare*." Moral guidance should not be understood as discipline (even though the term *Zucht* is often translated as *discipline*). Although Herbart identifies a need for discipline (*Regierung*), he defines discipline as confined to the task of preventing the learner from harming himself or herself, or others. Thus, discipline is a precondition for, but not part of, education proper.

Moral guidance, for Herbart, describes a form of dialogic interaction with the learner to help him or her critically examine self-interested inclinations and judge these according to moral ideas. A central aim of such dialogue is to help the learner develop an "inner censor." The inner censor comes forth in moral dilemmas when we ask ourselves the question, What should I do? The inner censor can be construed as an individual's inner self-critical voice telling the individual what not to do, much like Socrates's *daemon*.

A key concept associated with how educators should cultivate a learner's inner censor is found in Herbart's notion of "inner struggle." Inner struggle arises when we attempt to confront past decisions and make changes in the way we think and act in the world. Herbart's notion of moral guidance underscores that the educator must not attempt to alleviate the learner's own inner struggle, for example, by telling him or her what to do. Rather, in his view, the educator must support learners to engage in inner struggle, question their past decisions, and inquire into how to make choices that respect others.

The aim of moral education is to develop a disposition in the learner to judge situations of action reflectively, not normatively. Herbart (1808) connects his theory of education directly to his ethics, expounded in his *General Practical Philosophy (Allgemeine Praktische Philosophy)*. Expanding on the idea of the Good Will expressed in Kant's categorical imperative, Herbart delineates five individual moral ideas to which he imparts specialized philosophical meanings: (1) *inner freedom (innere Freiheit)* captures the need for critique of one's will in all judgments of what to do; (2) *completeness (Vollkommenheit)* addresses the need to have differing perspectives to inform one's view; (3) *benevolence (Wohlwollen)* captures the need to express good will toward imagined others; (4) *right (Recht)* expresses the need to find agreements in cases of conflict with others; and (5) *justice (Billigkeit)* addresses the need to correct broken agreements and compensate those adversely affected. The moral ideas represent aesthetic relations of the will that are meant to orient one's view of oneself in relation to one's will, to objects, and to other human beings when making judgments about what to do.

For Herbart, educative instruction and moral education reciprocally support one another: Instruction helps the learner expand his or her view of the world with differing and conflicting perspectives, while moral education helps the learner learn to recognize wrong or bad decisions, decide which perspectives will guide his or her actions, and contribute to new ideas of the good.

Perfectibility

Herbart names the perfectibility (*Bildsamkeit*) of a human being as the founding principle of education. The term *perfectibility* is meant to capture the idea that all human beings are capable of being formed by the world and also of forming the world around them. Human perfectibility entails that human beings can be influenced by others and thus educated by others. For Herbart, the fact that human beings can change, engage in self-critique, and alter their directions of thought and action provides the basis for the human capacity to become moral individuals, that is, individuals who make choices that respect others.

Herbart's concept of perfectibility connects to the philosopher Jean-Jacques Rousseau's (1712–1778) idea of perfectibility (*perfectibilité*), which means the ability to learn. The notion Herbart develops also relates to the German idea of *Bildung*, often associated with the work of the philosopher Wilhelm von Humboldt (1767–1835). *Bildung* refers to a process of self-transformation through interactions with the world and others and is most often translated as "education" or "formation."

Herbart's concept of perfectibility has consequences for how we understand the task of the educator. The concept of the human being as changeable neither presupposes that the human being is a blank starting point (*pace* John Locke), nor does it entail that there is a predetermined final endpoint or *telos* to a human being's learning process. By grounding education in the principle of human perfectibility, Herbart makes clear that educators must recognize all human beings as capable of learning, transforming their view of the world, asking questions, and developing an inner censor. Moreover, it brings to the fore the fact that educators must recognize their ability to have an influence on a learner's future. It follows that educators must take responsibility to make conscious choices about how they will influence each learner, without seeking to predetermine the learner's future, a future that can only be decided by the learner. Herbart thus reminds educators that educating is a moral endeavor in which each learner must be given a broad, multifarious view of the world to be able to make decisions for themselves.

Tact and the Teaching Profession

Herbart gives significant thought to the teaching profession and the question of what is entailed in being a good teacher. He developed a concept of pedagogical tact that still has relevance for how we understand the teacher's task today. The concept of tact relates to Aristotle's notion of *phronesis* and can be understood as the teacher's ability to make wise decisions in the moment. According to Herbart, teachers must learn to be pedagogically tactful. This means they have to learn to have distance on educational situations with learners; be innovative and improvisatory on the basis of what the learner brings in terms of questions, understanding, and prior experience; and be able to reflect on and critique their own choices and change.

Herbart's concept of pedagogical tact is important for contemporary discussions of teaching. Tact in teaching, as Herbart develops it, gives a sense of teaching as something much more than a technical task of getting learners to particular outcomes. The concept of tact contributes to understanding teaching as a reflective practice. As such, it involves not only the ability to plan but also the ability to understand and judge what to do in unexpected situations that arise in interactions with learners.

Herbart's thoughts on education give us a vision of education as more than mere socialization. His work influenced American philosophers of education such as John Dewey (1859–1952), who was an active member of the National Herbart Society (which was formed around 1895 in the United States and was renamed the National Society for the Study of Education until it dissolved in 2008). Herbart's theories failed, however, to have a lasting effect in the United States, largely due to the late-19th-century movement called Herbartianism. The Herbartians simplified Herbart's theory of instruction into a rigid method of "steps" that involved teachers getting learners to fixed stages of learning. Although the Herbartians' interpretation of Herbart was limited, this is not to say that Herbart's theory of instruction is beyond reproach. One problem with Herbart's theory of instruction is recognized by Dewey in his *Democracy and Education* (1916). In this work, Dewey points out that Herbart's theory does not adequately take into account the new ideas that the learner brings to learning situations. But this critique only applies to Herbart's theory of cognitive learning, which views learning too strongly as a step-by-step progression toward knowledge that the teacher can regulate; it does not apply to his concept of moral guidance and moral learning.

The reception of Herbart as interpreted by the Herbartians has hindered the fruitful aspects of his work from being acknowledged, such that in the past century, very little has been written on Herbart in the English language. Herbart's concept of moral guidance has strong applicability for renewing our understanding of moral education today. Moral education in his view is not reducible to simple concepts of behavior management, such as seating charts or rules about acceptable behaviors, that we might find guiding teaching practice in today's classrooms. Herbart makes a significant point about moral learning, namely, that it is only through struggle and self-critique of self-interested inclinations that we learn how to make reflective judgments that respect others. Herbart's philosophy of education reminds us of the complexity of educating others, when this is seen as a process of supporting critical thinking.

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See also Autonomy; *Bildung*; Critical Thinking; Dewey, John; Kant, Immanuel; Moral Education; Phronesis (Practical Reason); Rousseau, Jean-Jacques; Teaching, Concept and Models of

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Hermeneutics

Hermeneutics—"a term whose Greek looks, theological past, and Herr Professor pretentiousness ought not put us off because, under the homelier and less fussy name of interpretation, it is what many of us at least have been talking all the time."

—Clifford Geertz, *Local Knowledge* (1983, p. 224)

Hermeneutics is the theory and philosophy of understanding and interpretation. The term derives from Hermes, a son of Zeus, who interprets messages from the Greek gods. Hermes was not simply a messenger, however. He was also a trickster. It was not always easy to determine which role Hermes was playing.

As Hermes's story suggests, understanding and interpretation can be fraught. In education, for example, students sometimes struggle to understand the meaning of texts. Teachers try to understand students' questions and may wonder about the meaning of teaching for their own lives. Educational researchers who use qualitative and quantitative methods make interpretive judgments (albeit for different reasons) and must determine whether their interpretations are defensible. Hermeneutic theory recognizes that interpretive challenges such as these can be analyzed from various perspectives that posit different assumptions about what interpretation entails and what the goals of interpretation should be. Becoming familiar with debates in hermeneutic theory can help us appreciate the interpretive complexities we encounter every day and permit us to become more thoughtful interpreters.

A key debate concerns how interpretation is defined. One definition frames interpretation in terms of epistemology (the philosophy of knowing and knowledge). From this perspective, interpretation is a method or cognitive strategy we employ to clarify or construct meaning. The goal is to produce valid understanding of meaningful "objects," such as texts, artifacts, spoken words, experiences, and intentions.

The second definition frames interpretation in terms of ontology (the philosophy of being and existence). In this view, interpretation is not an act of cognition, a special method, or a theory of knowledge. Interpretation, instead, characterizes how human beings naturally experience the world. Realized through our moods, concerns, self-understanding, and practical engagements with people and things we encounter in our sociohistorical contexts, interpretation is an unavoidable aspect of human existence.

The epistemological and ontological definitions of interpretation interact as sibling rivals. The hermeneutic "family split" arose more than a century ago when beliefs about the practice and aim of interpretation intersected with the success of physical science and the rise of social science. In the course of this entry, we will examine the German branch of the hermeneutic family tree beginning in the 19th century with Wilhelm Dilthey, who argued that interpretation is both (a) a method and a theory of

knowledge for the human sciences and (b) the prere-flective mode of everyday lived experience. As will be shown, Dilthey could not reconcile his aspiration for an epistemology of interpretive social science with his realization that interpretation is an ontological feature of human experience that cannot easily be transformed into reflective scientific knowledge.

In the 20th century, Martin Heidegger argued that Dilthey was correct to intuit that "lived" understanding cannot be fully theorized or methodically regulated. Unlike Dilthey, however, Heidegger maintained that scientific knowledge *necessarily* remains indebted to lived understanding. We will explore why Heidegger argued for the primacy of lived understanding. We will also see how Hans-Georg Gadamer drew on Heidegger's hermeneutics to develop an ontological model of social science, which posits that interpretation in social science is no different from interpretation in ordinary life.

Gadamer's ideas have provoked a range of responses. We will look at two contemporary criticisms. One seeks to replace Gadamer's ontological hermeneutics with epistemological hermeneutics. The other appreciates Gadamer's ontological social science but argues that it must be supplemented by method and theory. In conclusion, the entry will briefly review how educational philosophers use hermeneutics to analyze educational practices, aims, and research.

Interpretive Social Science: Dilthey's Dilemma

Wilhelm Dilthey (1833–1911), a Protestant theologian, devoted his life to developing the *Geisteswissenschaften* (German for social science, also translated as the human or moral sciences, or sciences of mind or of the human spirit). Dilthey thought that human beings express their understanding of life experience in the form of meaningful objects, such as texts, works of art, and various cultural expressions, and that interpreting these meaningful objects is fundamental for maintaining social life. Social science therefore requires a hermeneutic method, not the methods of physical science. It also requires an epistemology of interpretive knowledge, not a theory of knowledge concerned with causal explanation. The German word *Verstehen* (interpretation; commonly translated as *understanding*) captures Dilthey's belief that the social sciences are interpretive and, therefore, are distinct from the physical sciences. Dilthey insisted that the two forms of scientific knowledge, while different, are equally rigorous.

Dilthey based his ideas on the *hermeneutic circle*, a method of interpretation that became prominent during the Reformation, when Protestant theologians sought to interpret the Bible without appealing to the Catholic Church to determine the meaning of problematic passages or resolve interpretive disputes. As its name suggests, the hermeneutic method assumes that interpretation is circular. Because the meaning of the Bible was thought to be unified and self-consistent, the meaning of any specific passage could be determined by referring to the text as a whole. But since understanding the text as a whole presumes understanding its problematic passages, determining the meaning of a problematic passage depends on a preliminary intuitive grasp of the text's entire meaning. Biblical exegesis thus revolves in a continuous cycle of anticipation and revision. Interpreting the meaning of any part of the Bible depends on having already grasped the meaning of the Bible as a whole, even as one's understanding of the entire Bible will be reshaped as one clarifies the meaning of its constituent parts.

Another Protestant theologian, Friedrich Schleiermacher (1768–1834), maintained that the hermeneutic circle could ensure understanding not only of the Bible but also of all written and oral expressions. Using this method correctly, interpreters could understand the meaning of linguistic expressions better than the authors who produced them. Schleiermacher transformed the hermeneutic circle from a method of Biblical exegesis into a general theory of interpretation that explained how understanding could be achieved in ordinary circumstances.

Extending Schleiermacher, Dilthey contended that the hermeneutic circle not only helps people reflectively interpret others' meaningful expressions but also enables people to understand themselves and their own lived experience. This is because life experiences do not unfold in linear fashion but, instead, are related to one another as parts are related to wholes. On the one hand, we understand specific life experiences in terms of how we understand the meaning of our life as a whole. At the same time, the way we understand our life as a whole depends on how we understand specific life experiences. Understanding specific experiences thus shapes and also is shaped by understanding the overall meaning of our lives, even as understanding our life's overall meaning both shapes and is shaped by how we understand specific life experiences.

Applying the hermeneutic circle to life, Dilthey realized that understanding is temporal. Past experiences constitute the "parts" of one's biography. The future makes it possible to fathom one's life in toto. Interpreting the meaning of the future depends on and reshapes one's understanding of the past, even as interpreting the meaning of the past anticipates and revises one's understanding of the future.

Interpreting the meaning of time therefore is integral to interpreting the meaning of lived experience. It is important to note that at the prereflective level of interpreting lived experience, time is not an *object* for interpretation. It is impossible to freeze or objectify the past in order to interpret it. Neither is the future a stationary target at which interpretation aims. One rather interprets the meaning of time as one moves through time. Where lived experience is concerned, interpreting time and experiencing time arise together.

Dilthey drew two conclusions from this insight. First, the meaning of life experience is fluid. With the passage of time, the meaning of the past and the future shifts. At different points in the future, one's past will mean different things. The meaning of the future also changes, depending on the particular stage of life from which the future is anticipated.

Second, interpreting lived experience does not produce understanding that is abstracted from the experience of living. We cannot escape our situation to interpret it. Nor can we interpret our life and *then* experience it. Rather, we are practically engaged in living the life that we interpret. Prereflective interpretation, in short, is situated, partial, practical, and personal.

Dilthey believed that prereflective understanding of one's own lived experience could evolve into reflective theoretical knowledge of how other people understand their life experience. Theoretical knowledge thereby extends and refines pretheoretical practical understanding. But Dilthey recognized that because theoretical knowledge is rooted in pretheoretical understanding, knowledge in the social sciences, particularly in history, differs from knowledge in the physical sciences. The historian who reflectively examines the meaning of historical events himself is a historical being. The meaning of the past therefore cannot be established once and for all but instead varies with the perspective of the historian who studies it. Moreover, theoretical understanding remains rooted in the pretheoretical understanding it aims to clarify, even as pretheoretical understanding is changed by the theoretical understanding that

it grounds. Interpretation consequently revolves in a never-ending circle, rendering historical knowledge provisional and incomplete.

Although Dilthey believed that the interpretive social sciences could be as rigorous as the physical sciences, the character of knowledge in interpretive social science nonetheless vexed him. What kind of scientific knowledge is possible when the meaning of that which is studied constantly changes? Such knowledge is relativistic, not general and valid. Moreover, insofar as the historian "belongs" to the history he studies, historical knowledge cannot be objective. Historical knowledge instead is subjective, provisional, and partial. The circularity of interpretation raises the possibility that historical "knowledge" simply proves what it presupposes.

In an effort to reconcile understanding lived experience with scientific knowledge, Dilthey turned to his younger contemporary Edmund Husserl (1859–1938). Husserl demonstrated that science grows out of particular "lifeworlds" and necessarily presupposes nonscientific understandings. But while Husserl demonstrated that scientific knowledge depends on prereflectively understanding particular lifeworlds, he also subjected the lifeworld to phenomenological analysis to discover "essences" in lived experience that make theoretical knowledge of the lifeworld possible. In so doing, Husserl encountered a contradiction. On the one hand, pretheoretical understandings are relative to particular lifeworlds. On the other hand, phenomenological analysis aims to produce knowledge of the lifeworld that is universal and unconditionally valid. It was unclear how phenomenological analysis could both transcend and also remain indebted to pretheoretical understanding. Phenomenological analysis seemed both necessary and also impossible. Husserl did not solve Dilthey's dilemma but instead exposed another aspect of it.

Ontological Hermeneutics: Heidegger and Gadamer

Hans-Georg Gadamer (1900–2002) believed that Dilthey was stymied by a false assumption. Dilthey assumed that prereflective understanding is subjective. It therefore is biased and unreliable and cannot be the basis for interpretive social science. Gadamer countered that prereflective understanding is not subjective but instead is intimately and necessarily tied to critical reflection. The intimate necessary relation between prereflective understanding and critical reflection provides an opening for the disclosure of truth.

Gadamer based his ideas on the work of his teacher, Martin Heidegger (1889–1976). In his book *Being and Time* (1962), Heidegger probed two of Dilthey's important insights: (1) we experience the life that we prereflectively interpret and (2) prereflective understanding exhibits a circular temporal structure. Dilthey believed that these two conditions are contingent and apply only to prereflective understanding. Heidegger demonstrated that both conditions are necessary and characterize all understanding, including critical reflection.

Heidegger began by considering the question of existence. To exist, Heidegger reasoned, is to live in the present. As Dilthey showed, the present does not arise in a historical vacuum but instead always implicates the future and the past. Living in the present, we cannot help anticipate the future based on where we have been, even as our expectations for future experience color our understanding of the life we have lived. Heidegger used the term *historicity* to underscore the idea that human understanding is an *inescapably* temporal experience.

Insofar as understanding is an inescapably temporal experience, we do not choose to start (or stop) understanding at a particular point in (or out of) time. Rather, understanding is *a way of being* that always is already going on (to use Heidegger's phrase). It is true that understanding sometimes is mistaken. But breakdowns in understanding signify *mis*understanding, not an *absence* of understanding according to Heidegger.

As an experience that is always happening, understanding does not grasp the meaning of objects that are "present-at-hand," distinct from our interests and concerns. Understanding instead signifies being intimately involved with people and things. Our world is composed of implements that are "ready-to-hand," tied to our purposes, moods, interests, and so on. Heidegger described engaged practical ongoing understanding in terms of "fore-having," "fore-sight," and "fore-conception." The prefix *fore-* signifies that we are able to engage with implements in our world because we prereflectively sense how they are implicated with our interests and how they fit within the context of meaningful relations in which we find them.

The fact that we prereflectively understand meaning does not imply that understanding is stuck in the past. Prereflective understanding can change as human beings move into the future, reconsider prior understanding, and anticipate new possibilities. Heidegger insisted that prereflective understanding

could become critical and reflective. But critical reflection does not produce understanding where none had previously existed. Critical reflection instead remains indebted to the preunderstandings it clarifies and corrects.

Heidegger coined the term *thrown-projection* to describe understanding as an experience of being involved in the world. The term *thrown* indicates that we do not construct the meaningful context(s) in which we live. Rather, we are born into a social world that is inherently meaningful and that has already been interpreted by others. Interpretation is possible, because the world discloses meaning through the medium of language. We inherit this social web of meaning as a linguistic "horizon" within which the construal of meaning for our own lives becomes possible. The term *projection* is not synonymous with *planning*, according to Heidegger. Projection instead indicates that understanding is a dynamic experience of anticipating future possibilities. Because expectations for the future necessarily arise in the present, we cannot see them in their entirety or with absolute clarity. Moreover, while future possibilities are open, they nonetheless are partially circumscribed by possibilities that already have been fulfilled.

Heidegger said that the human being who experiences understanding as a cycle of thrown-projection is *Dasein*. *Dasein* means "there-being." Unlike the autonomous epistemological subject who leverages interpretation to grasp the meaning of objects (including objectified experiences), *Dasein* is not an independent agent who confronts discrete objects, the meaning of which he must deliberately choose to discover or construct. *Dasein* rather is "there" in the world, spontaneously involved with things that *Dasein* understands prior to any distinction between subjects and objects. *Dasein* does not initiate understanding and does not regulate the production of meaning. The fact of existing in an inherently meaningful and already interpreted world—not *Dasein's* own initiative—is the condition that makes both prereflective and reflective understanding possible.

Heidegger's claim that understanding is a temporally conditioned way of experiencing the world carries profound implications for social science, Gadamer concluded. He developed these implications in his magnum opus *Truth and Method* (1960/1975). Before sketching Gadamer's ontological view of social science, it is helpful to clarify two points. First, while Gadamer challenged the "science" in social science, he nonetheless used the term

social science (moral science and human science). According to Gadamer, science does not refer exclusively to natural science or exclude the humanities. Like many Continental European thinkers, science for Gadamer refers to systematic study in fields as diverse as theology, archaeology, and politics.

Second, Gadamer did not dismiss natural science. On the contrary, he believed that natural science is necessary and important. But Gadamer wanted to decenter the hegemony of scientific method in social science. He feared that when we rely on method to reflectively understand the social world, we tend to emphasize understanding that we regulate and consciously produce. Consequently, we may delegitimize, occlude, or ignore understanding that we do not control and cannot divorce from our self-understanding and historical situation. Insofar as social science relies on method, Gadamer believed that it alienates us from important dimensions of our ordinary life experience. Overemphasizing method also warps natural science, Gadamer claimed. While method has a place in natural science, magnifying its role conflates natural science with instrumental procedures that negate the importance of interpretive judgment and modesty in scientific practice.

Gadamer thus was not hostile to science. Nevertheless, he sought to significantly reframe *social* science. Following Heidegger, Gadamer argued that interpretation in social science is a temporally conditioned experience or "event" that we live through, not a kind of knowledge that we achieve by methodologically regulating our life experience or by abstracting and justifying critical reflection outside of ordinary understanding. Understanding and interpretation in social science are no different from understanding and interpretation in daily life. In both cases, Gadamer maintained, we experience understanding and interpretation as a dialogue or conversation.

The notion that social science is a conversation might seem startling. We typically think that social scientists collect and analyze data. But the people and texts that concern social scientists are not sources of data according to Gadamer. They are conversation partners.

Texts for Gadamer are conversation partners no less than people. Texts are not inanimate objects in which an author's intended meaning is permanently congealed. Texts are rather dynamic linguistic horizons that disclose meaning over time. Gadamer's social scientist starts to understand a text when she recognizes that it raises a question or issue that does not belong exclusively to the text (or its author) or the question or issue that the text voices comes down through tradition and also concerns the social scientist. Similarly, the social scientist starts to understand another person not because she empathizes with him or is able to leap out of her own body to get inside his head but because understanding begins when the social scientist recognizes the question or issue that concerns the other person and realizes that this question concerns her as well.

Of course, neither party in the conversation can escape the situation into which each has been "thrown." Understanding therefore does not aim to capture *the* meaning of a question. The meaning of a question rather is codetermined by the horizons of the people who interpret it. People who inhabit different horizons will understand the "same" question differently. Insofar as horizons are temporal and change over time, the "same" question will be understood differently every time it is interpreted.

If we necessarily bring our own horizon to understanding an issue, how can we recognize the horizon of our partner? What prevents us from appropriating our partner's perspective or conflating it with our own? Gadamer proposes two answers. First, he notes that horizons are porous, not self-enclosed. In principle, therefore, horizons can interpenetrate.

Gadamer's second answer concerns the disposition of conversation partners. In a successful conversation, each party is open to the possibility that the other's perspective is true and may challenge and even refute one's own understanding. Gadamer insists that one's own understanding cannot be clarified or corrected as long as one entertains the other's perspective from afar and continues to maintain the truth of one's own position. Change instead requires one to *risk* one's assumptions and to actually experience the negation of one's understanding. Gadamer acknowledges that negative experiences are uncomfortable, nevertheless negative experiences can be openings for genuinely reflecting on prior understanding and arriving at new insight into an issue.

Thus, like prereflective understanding, critical reflection for Gadamer is an experience we undergo. In successful conversations, both parties are open to risking their assumptions. As a consequence of being challenged, the understanding of both parties can become more encompassing, perspicacious, critical, and reflective. Gadamer calls the reflective dimension of conversation a "fusion of horizons."

Neither party can predict in advance how its horizons will be fused. When one party tries to direct the conversation or claims to know what the other is thinking, "talk" becomes something other than conversation, Gadamer observes. But when a fusion of horizons genuinely happens, both parties come to understand a truth about life's meaning that neither could know outside of participating in the conversation.

In sum, Gadamer's reframing of social science in terms of a conversation that we experience with others differs from the way we typically characterize social science. Gadamer's researcher does not try to empathize with those whom she studies. Neither does she regard them and their cultures as exotic and distant. Rather, she endeavors to recognize a question or issue that she and her partner share. The meaning of the question cannot be determined "objectively" but instead is codetermined by the horizon of both the researcher and her partner and changes with each interpretive event. The self-understanding of Gadamer's researcher is not controlled or kept out of play but instead is affected by allowing her partner to challenge her understanding of the question that is of mutual concern. The researcher cannot direct this experience or predict the new insight that the conversation will disclose. Instead, she participates in an event that transforms both herself and her partner in ways that neither party can imagine in advance.

Insofar as method helps researchers regulate understanding, Gadamer contends that it distances them from their lived experience. Relying on method seduces people to underplay and even discount the experiential dimension of critical reflection. Social science becomes an intellectual exercise, not an opportunity for personal transformation. In place of honing methodological skill, Gadamer wants social scientists to cultivate the disposition to be open, take risks, and trust that they may have something to learn from their interlocutors. Framing social science as a conversation we experience with others can rehabilitate the moral dimension of social science, Gadamer concludes.

Responses to Gadamer

A number of contemporary scholars are developing the philosophical and practical implications of Gadamer's social science. In his influential essay, "Interpretation and the Sciences of Man" (1971), Charles Taylor (1931–) argues that social scientists are "self-interpreting animals" who always prereflectively understand their theoretical conclusions and who inevitably appeal to intuitions and self-understanding to justify their findings. Ruth Behar (1956–) provides a practical example of ontological social science. Behar's book, *The Vulnerable Observer* (1996), does not explicitly reference hermeneutics or Gadamer. Nonetheless, she argues in it that anthropological insight necessarily implicates the anthropologist's self-understanding; the anthropologist's self-understanding, moreover, is vulnerable to (and affected by) the people whom she studies.

While a number of practitioners and scholars embrace Gadamer, his work also provokes criticism. Thinkers such as Emilio Betti (1890–1968), E. D. Hirsch Jr. (1928–), and Dagfinn Follesdall (1932–) epitomize one line of response. According to these critics, Gadamer's claim that the interpreter's situation influences meaning and that meaning is construed differently in each interpretive event leads to relativism. Moreover, Gadamer provides no basis for adjudicating conflicting interpretations. Adjudication must appeal to an extracontextual criterion, which Gadamer believes is impossible. In short, these critics conclude that hermeneutics should remain under the umbrella of epistemology. They endeavor to show how interpretation is or can become a rigorous method and theory of knowledge for producing valid objective understanding of texts.

Jürgen Habermas (1929–) articulates a second response. Unlike the critics noted above, Habermas appreciates Gadamer's insight into the ontological nature of social science. Presuppositions are always operating, Habermas notes. Understanding is irreducibly contextual, historical, and bound up with the interpreter's self-understanding. The social scientist consequently belongs to the social world that he interprets. Social science theories issue from the pretheoretical practices they strive to explain.

But despite these points of agreement, Habermas questions Gadamer's faith in the power of language and conversation to disclose truth and promote critical reflection. Language is not simply a communicative medium for understanding meaning, Habermas argues. Material conditions and power interests can systematically and insidiously distort meaning in ways that language does not make apparent. Hence, reflection must do more than simply *clarify* lived understanding by means of conversation. Reflection must also help people *distinguish* lived understanding from ideology. Becoming liberated from ideology

requires a theory that can methodically explain the genesis of distortion by appealing to rationally self-evident causes.

Hermeneutics and Education

Contemporary scholars employ hermeneutics to analyze a range of educational issues, including children's rights, teaching and teacher education, science education, medical education, curriculum theory, inquiry-based learning, and validity in educational assessment. Some scholars contrast epistemological and ontological hermeneutics. Others focus on ontological hermeneutics as a framework for critiquing and reframing educational practices and aims. These scholars develop ideas articulated by Heidegger and Gadamer, who sought to interrupt utilitarian, technical, and market-based influences on education that emphasize developing skills and mastering knowledge. Heidegger and Gadamer countered that education is "*Bildung*"—an ongoing experience of self-formation and transformation—in which one learns to become receptive to ways of being that differ from and even challenge one's own horizon. Conceived as *Bildung*, education aims to help students become more reflective and humble as their horizons expand in ways that neither they nor their teachers can foresee.

Hermeneutics also resounds in normative debates about qualitative inquiry. From an epistemological perspective, the central issue for qualitative research is the dilemma that vexed Dilthey: Given that interpretation necessarily presupposes prior understanding that is personal, temporal, and situated within particular sociocultural contexts, how can interpretive conclusions be objective, generalizable, and valid? From an ontological perspective, the aim of qualitative inquiry is not simply to produce knowledge about educational questions. Qualitative research also should aim to *be* educative, catalyzing people to challenge their current understanding of education in order to arrive at new, more encompassing insights and questions concerning education and the human condition.

Debates about specific issues appeal to both Dilthey and Gadamer. For example, Dilthey and Gadamer maintained that interpretation necessarily implicates one's self-understanding and sociohistorical situation. While this idea is axiomatic among qualitative researchers, it nevertheless raises questions about the self-understanding of researchers in relation to the people they study.

Epistemologically oriented qualitative researchers wrestle with how they can control or at least reflectively account for their *own* "positionality" and self-understanding so that they can accurately interpret how their subjects make sense of the world. A key question concerns whether and how self-reflection on the part of researchers can be methodically achieved. Are there methods that can help researchers address challenges to self-reflection that arise in the field? If so, which methods should researchers adopt and under which circumstances?

An ontological view of self-understanding raises different issues. Some collaborative action researchers maintain that research questions should be of mutual interest to both "subjects" and researchers. Reflective insight into these questions cannot arise if researchers keep their understanding out of play. Both parties—subjects and researchers—must allow their understanding to be *critically engaged* by the other so that they might become aware of assumptions they might otherwise fail to notice. From an ontological perspective, the key question is, "How can researchers risk their self-understanding and be open to being challenged by their subjects (and vice versa)?" Learning to risk one's self-understanding is not a methodological achievement. It rather requires researchers to cultivate a certain disposition.

Debates about research as conversation illustrate another set of hermeneutic concerns. Some conclude that while conversation is an ideal to which qualitative researchers should aspire, it is unclear whether and how this ideal can be enacted. Institutional review board regulations assume that the rights of research subjects must be protected. This epistemological assumption makes it difficult, if not impossible, to approach research as a Gadamerian conversation that regards subjects and researchers as equal partners.

Some qualitative researchers adopt a Habermasian view of conversation. They point to a legacy of privilege and marginalization and warn that seemingly openhearted conversations can exploit subjects. Scholars of color who conduct qualitative research in their home communities discuss how their university status distances them from people with whom they were able to easily converse before they became university researchers. For these scholars, the unforeseen insights that arise during research conversations are experiences of alienation, not Gadamerian solidarity.

Finally, hermeneutics figures in debates about the scientific status of educational research. D. C. Phillips

has pursued this issue, arguing for the centrality of interpretation in postpositivist science. While the postpositivist embrace of interpretation came by way of Popper and Kuhn, not Dilthey, Heidegger, or Gadamer, the two views of interpretation are remarkably similar. For example, postpositivists acknowledge that research is mediated by the researcher's historical/cultural situation; observation necessarily is theory laden. With respect to social science, postpositivists recognize that researchers struggle to understand themselves as they endeavor to interpret others. Failing to acknowledge the need for interpretive judgment in science and social science results in a phenomenon that Phillips (2006) calls "methodolatry." Methodolatry conflates research with technical method (specifically, randomized field trials) and discounts research as a uniquely human practice.

Phillips's critique of methodolatry sounds Gadamerian. Unlike Gadamer, however, Phillips takes an epistemological view of social science and distinguishes claims about the empirical world from insights into the meaning of lived experience. The latter implicate self-understanding. The former do not. Openness to being challenged may help social scientists recognize when their conclusions are wrong. But claims about the empirical world can be wrong, *whether or not social scientists acknowledge that they are wrong*. Claims about the empirical world can and must be assessed on their own merit, Phillips stresses, irrespective of their origin or the self-awareness of the researcher who produced them. Assessing the validity of empirical claims and clarifying lived understanding are two different projects, Phillips concludes.

Conclusion

Hermeneutics addresses a range of enduring philosophical questions concerning how human beings understand themselves and the social world. Questions about interpretation are not simply theoretical, however. As hermeneutic analyses of education make plain, questions about interpretation are eminently practical. Questions of practice complicate interpretive theories, generating new questions for theory to clarify and explain.

Deborah Kerdeman

See also Bildung; Continental/Analytic Divide in Philosophy of Education; Critical Theory; Dialogue; Heidegger, Martin; Phenomenology; Philosophical Issues in Educational Research: An Overview; Qualitative Versus Quantitative Methods and Beyond; Schleiermacher, Friedrich

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HIDDEN CURRICULUM

A curriculum is a program consisting of a series of learning activities intended to realize some set of educational objectives. The mission of a school or other educational agency is understood to be the delivery of a curriculum to some group of students or other learners. Generally, the content of a curriculum is announced so that students and other stakeholders are aware of what learning opportunities are available at a given school or set of schools. It is the case, however, that not all of a school's learning opportunities are advertised—schools also feature a hidden curriculum whose objectives and learning activities are seldom spelled out. This hidden curriculum is implemented via routines and attitudes instilled through students' experiences with the explicit curriculum and its milieu; these experiences may be consonant or dissonant with the explicit curriculum. In any case, the instructional outcomes generated by these routines and attitudes are often judged by scholars and social critics to be more significant than those generated by the explicit curriculum. Therefore, ignoring the hidden curriculum is a stumbling block to disclosing the true character and outcomes of any curriculum. This entry discusses how the term *hidden curriculum* is used to refer to a variety of aspects of schooling, including collateral learning, socialization, and perpetuation of advantages based on gender or class.

In the education literature, the term *hidden curriculum* has been used in a number of different ways that are not always consistent. While all senses of the expression imply that it is somehow obscured from general notice, commentators otherwise define it variously and explain the intentions of its creators differently. Hidden curricula are often singled out to identify some educational ill, although it sometimes is argued that they can also take benign or positive forms.

John Dewey wrote about one meaning of hidden curriculum in *Experience and Education* (1938). He drew attention to how "collateral learning" (e.g., of habits and attitudes) affects what students take away from their encounters with subject matter.

This collateral learning, he argued, holds equal or greater educational significance than the explicit curriculum because the habits and attitudes instilled have more lasting effects on students than the subject matter itself. There is now persuasive empirical evidence in support of Dewey's view, such as *The Subject Matters: Classroom Activity in Math and Social Studies* (1988) by Susan S. Stodolsky.

Philip W. Jackson is often credited with coining the term *hidden curriculum*. In his influential book *Life in Classrooms* (1968), Jackson portrays hidden curriculum in a manner related to, yet discernible from, collateral learning as described by Dewey. Rather than being focused on the subject matters of the curriculum, such as spelling and history, Jackson is more concerned with how classroom life socializes students to certain norms, expectations, and routines, such as working in a solitary fashion among a crowd of other students. In a similar vein, he points out how schools reward certain behaviors, such as compliance and patience. Jackson affords more significance to these types of factors than to the particular subject matter under study. One way of summing up Jackson's thesis is that patterns of repeated behavior over thousands of hours of classroom life, although seldom remarked on as the salient feature of schooling, may have a bigger cumulative effect on students than the formally announced curriculum. In a later book, *Untaught Lessons* (1992), Jackson further explored the implicit long-term effects teachers have on students.

The attitude Jackson adopts toward the hidden curriculum in *Life in Classrooms* could be considered neutral. Nonetheless, his book and other works with related themes, such as Robert Dreeben's *On What Is Learned in Schools* (1968), appeared during an era of widespread criticism of dominant societal values. Part of this criticism was directed at schools, particularly their role in perpetuating educational inequities. This context seems to have contributed to the keen interest educators took in hidden curriculum at the time. Whereas traditionally answers to what students take away from school referenced the objectives and content of the explicit curriculum, this type of response became regarded as discordant with reality when outcome measures showed that some groups benefited far more from school programs than other groups. In particular, attention was now drawn to how the hidden curriculum discriminated among students on grounds of gender, race, social class, and, in time, sexual orientation.

For example, investigation of gender and the hidden curriculum showed various ways in which girls were disadvantaged relative to boys. For instance, instructional materials were found to feature sexist assumptions while teachers gave more attention to boys than girls. Some of these practices were so overt that there was room for doubt as to whether it was warranted to designate them as cases of *hidden curriculum*.

Yet another sense of hidden curriculum centers on underlying forces that lead to schools reproducing the existing social and economic order. While related to the concern about discriminatory practices just mentioned, this perspective has been inspired by critical theory. It conceives the hidden curriculum as a mechanism by which schools legitimate the success of some students and the failure of others. Thus, schools serve to discriminate along the lines of social class, effectively assigning successful students to a path leading to managerial and professional positions and the rest of the students to skilled and unskilled labor positions. This view of the hidden curriculum came into prominence in the 1970s. In England, Paul Willis explored the role of schools in assigning working-class children to working-class jobs; Michael W. Apple and Linda McNeil were important voices for this line of thought in the United States. McNeil in her *Contradictions of Control: Social Structure and School Knowledge* (1986) argued that the underlying organization of high schools ran counter to realizing announced objectives such as teaching critical thinking. Rather, the unannounced objectives were set by forces beyond the classroom and were aimed at efficiency and control, which undermined the possibilities for engaging teaching and substantive learning. Skeptics of this critical line of thought asked, however, "*Who* or *what* was furtively organizing schools to these ends?"

Sometimes, "hidden curriculum" has been used to mean what schools do not make available—that is, what is not taught. This usage draws attention to the consequences of curricular neglect, since what is not taught is more than a neutral void; it limits what one can think about and the possibilities one can consider. According to Elliot W. Eisner, this is more properly termed the *null curriculum* since it connotes absence rather than lack of visibility.

The hidden curriculum has also been studied as a hindrance to educational change. For instance, the fate of instructional reforms or curriculum changes rests as much on school culture—much of which is in the hidden curriculum—as it does on announced and visible changes. This, according to Seymour Sarason, is a problem as the hidden curriculum serves as an obstacle to change. From this perspective, change generally stays at the surface level, leaving the basic workings of schools largely in place.

Stephen J. Thornton

See also Apple, Michael; Critical Theory; Curriculum, Construction and Evaluation of; Social Class; Socialization

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HIGHER EDUCATION: CONTEMPORARY CONTROVERSIES

Higher education comprises formal or institutionalized education, leading to the awarding of recognized qualifications beyond the level of secondary schooling. It is defined in a variety of ways in different nations; in some countries, including parts of Europe and Australia, "higher education" is confined to degree-granting programs normally of three full-time years or more in duration. However, in some other countries, such as the United States and Canada, subdegree programs of two full-time years are included, while in some jurisdictions, shorter programs are included. The Organisation for Economic Co-operation and Development, which

publishes an annual series of comparative statistics on education, remakes the problem by focusing on "tertiary education" and dividing that category into degree and selected subdegree programs.

A related issue is the definition of *university*. This is variously regulated by legislation and custom, and again with a range of approaches. Some jurisdictions confine the title to institutions that conduct formal research activity. Others admit teaching-only institutions. Not all university programs entail degrees, and the length of programs varies greatly. In practice, however, the designation *university* tends to be more exclusive than *higher education*, which in many countries includes institutions designated as *colleges*, *institutes*, or with other titles, as well as *universities*. This entry discusses the role of higher education, the effects of growing enrollment in higher education, and tensions between the state and institutions of higher education.

Competing Narratives of the Role of Higher Education

Higher education institutions together are among the most connected of social sectors, and they are also relatively highly internationalized. Higher education is less ubiquitous than government or financial institutions but equivalent in the scale and scope of its networked relationships with churches and major professions. It includes a large proportion of national populations in its activities, at one or more stages of the life cycle, and is closely connected to government and to all organizations in knowledge-intensive economic and occupational activity.

Higher education is also attended by continuing controversies, for two reasons. The first reason is that higher education is the subject of different narratives concerning the social functions of the sector. These narratives, partly sustained by the various connections between higher education and other sectors, shape its practices. The purposes of higher education are many. The concept of the "multiversity," outlined in the 1960s by the then president of the University of California, Clark Kerr, was intended to capture this. The different narratives combine in often eclectic ways, and under some circumstances, they are in tension. There are various, often ill defined, and competing claims about higher education concerning its roles in individual and social formation, the allocation of social opportunities and fairness in that allocation, political democracy and the formation of citizens, international relations

and global cosmopolitanism, economic productivity and the creation of employment opportunities for graduates, and even its contributions to culture, the arts, and civilization. It is impossible for any set of institutions to meet all such expectations simultaneously, expectations that are themselves subject to many interpretations.

The second reason why higher education is open to controversy is that it is primarily shaped by nation-states and open to the techniques of governmental control but needs some institutional autonomy and academic freedom to carry out its functions, especially in research. Government–institution tensions are endemic, especially in those countries with a liberal tradition, such as the English-speaking democracies.

These matters play out in different ways in national higher education systems. In addition to North American higher education, the most influential form, and higher education in the other English-speaking countries, there are distinct approaches to higher education in France, Germany, the Nordic zone, Russia and other European countries, China and the rest of East Asia, South Asia, Southeast Asia, Latin America, and elsewhere. All research universities have much in common, especially in the sciences, and have moved closer to each other in the era of the Internet through cross-border networking and mobility of people, global academic publishing, and the normalizing role of global university rankings that began in 2003. But national differences remain, especially in political cultures and state–institution relations, in the structuring of the academic profession, and in the financing of higher education. In some countries, the sector is largely funded by governments; in others, the funding is shared by students or households. While there are common trends and issues as discussed here, these are articulated through national systems in distinctive ways.

The classic 19th-century notions of the university, associated variously with John Henry Newman and with Wilhelm von Humboldt's idea of *Bildung* (German for *education* and *formation*), focused on the formation of personal attributes. Whereas Newman emphasized engagement in intellectual disciplines as an end in itself, and refused the possibility of other ends or purposes of education, the German tradition emphasized self-cultivation through learning, coinciding in this respect with Confucian tradition, and it was more open as to the uses or applications of higher education. These

traditions remain influential. More recent narratives have focused explicitly on the uses of higher education and its relations with other sectors and purposes. In a rebuttal of Newman, Clark Kerr titled his authoritative summary of the workings of the post–World War II higher education as *The Uses of the University* (1963).

As noted, the growth and development of modern mass systems of higher education have been shaped and largely financed (albeit to varying degrees) by nation-states. States emphasize the contributions of higher education to national economic development and its role in the provision of social opportunity. Increasingly, state policy also focuses on the role of higher education in augmenting the global capacity and competitiveness of the national economy and the contribution of research and research training to economic innovation. At the same time, the growth of popular demand for higher education, especially among middle-class families, continually drives governments to expand provisions of higher education. This is true in both multiparty electoral democracies and in one-party states such as China, Singapore, and Malaysia. Governments gain support by expanding educational opportunity. The nexus between popular demand for, and state-regulated supply of, higher education is associated with narratives about access, participation, and equality of opportunity. In addition, in many national systems, the focuses on economic development and educational opportunity are joined to discussions about the employability of graduates. There is recurring unresolved debate about whether higher education is responsible for graduate unemployment and what, if anything, it can do to enhance employability.

Since the early 1960s, the dominant policy narrative of vocational and higher education has been human capital theory. Summarized in the work of the Nobel laureate Gary Becker, human capital theory models education as an investment in the augmentation of individual economic attributes. It argues that the economic effects of education can be measured by calculating the difference between the lifetime earnings of graduates and those of nongraduates, though some human capital economists discount the calculation of rates of return for factors such as individual ability. In essence, human capital theory imagines that an increase in individual capability will increase the individual's intrinsic productivity; this triggers an increase in earnings, regardless of the state of the macroeconomy, fluctuations in labor market demand, the stratification of work

opportunities, and the role of educational institutions in social selection. The enhanced earnings of graduates in turn feed into macroeconomic growth and prosperity. This narrative ascribes a central role to higher education in driving economic growth and suggests that the better the quality of higher education, the more effective will be its economic contribution. While conclusive empirical grounding for human capital theory is lacking, it remains influential.

Some economists and sociologists pursue an alternative narrative—screening theory. This models education not as a contributor to intrinsic productivity but as a signaling and queue-ordering device that facilitates employee selection of personnel. Human capital theory emphasizes the supply side of the education–economy relationship, and it assumes that education gains value from its intrinsic usefulness; screening theory emphasizes the demand side, and it assumes that education gains value from exchange in the labor markets. Human capital theory implies that more public and/or private resources should be invested in higher education to lift economic growth, whereas screening theory does not. Human capital theory suggests that any student placed in a higher education discipline ought to generate equal returns on investment; screening theory is more consistent with stratification in the value of institutional brands. On the whole, human capital thinking has been dominant in shaping policy, sustaining the expectation that more and better higher education should advance economic growth. However, government commitment to the value of investment is variable. Conditions of economic boom mostly favor an expansion of both state and household investment in higher education. Conditions of economic recession can trigger either increases or decreases in state investment and tend to depress levels of household spending.

Massification of Higher Education

Nation-building policies, economic agendas, and social aspirations, often but not always joined to demographic growth, combine to drive the continuous expansion of higher education systems almost everywhere. In an influential paper published for the Organisation for Economic Co-operation and Development in 1974, Martin Trow theorized the evolution of national higher education systems from an "elite" phase in which the rate of participation of young people was no more than 15% of the

age-group, to a "mass" phase in which the participation rate was between 15% and 50%, to "universal" systems with participation more than 50%. He argued that each phase was associated with distinctive institution and systems designs, curricula, and social expectations. Discussion of higher education and social opportunity is often joined to democratic narratives favoring the expansion of opportunity to include all citizens and the enhancement of relative opportunities for social groups underrepresented in the higher education sector. These social groups include women, ethnic minorities, people from rural and remote districts, and people from home backgrounds where income or parents' education is lower than the mean. In the past 30 years, in almost every national system, the overall participation of women in higher education has improved dramatically, so that women often outnumber men, except in a few disciplines such as engineering. In contrast, it has proven difficult to lift the relative proportion of students from poor backgrounds despite significant policy effort in many countries.

Yet the drive for expansion also embodies powerful desires for individual social status and relative advantage, if necessary at the expense of others; and equality of opportunity policies have often focused primarily on ordering a fair competition for scarce high-value places. The different institutions and disciplines do not necessarily confer equivalent value. For example, medical degrees confer relatively high value in terms of both social status and lifetime earnings. The paradox of status competition in education is that the more that aspiration and opportunity become universal, the harder it is for the average place in higher education to provide exalted status, as the number of positions that can provide relative advantage is fixed. Positional competition is a zero-sum game, as Fred Hirsch pointed out in *Social Limits to Growth* (1976). In most, though not all, countries, higher education institutions are ranked in hierarchical terms, whether formally in a system of institutional classifications or informally through social convention and reputation. Trow's elite system of higher education, centered on the strongest universities, seems to survive inside the mass or universal systems.

National research universities, supported by the government, play a leading role in nearly every national system. Only in the United States are most of the leading institutions located in the private sector. In other respects, there are marked variations in system organization. The degree of diversity of institutions itself varies significantly. Some systems exhibit a stable division of labor between institutional types, while in others, there are endemic boundary disputes, contestation over primacy in specific niches, and upward "academic drift" away from established missions. The role of institutions in research and the degree of selectivity of students at the point of entry are differentiating factors. In some systems, like the British, the norm is the large-scale comprehensive teaching and research institution active in most disciplines. In other systems, there are many specialist teaching institutions, which can be of high or low status. Some systems, following a pattern established in France and subsequently in Russia, provide specialist elite teaching institutions and maintain strong nonuniversity research institutes, though there is a trend toward large-scale comprehensive teaching/research universities, which is encouraged by the norms underpinning global university rankings. China has moved from the Soviet model toward the American science university model. In parts of Latin America, the leading universities are organized on a very large scale, exceeding 200,000 students, and located in many sites, providing both leadership training and social access and conducting a large proportion of national research. The role of the private sector varies from country to country. In some countries, all or nearly all institutions are public. In some systems, the private sector is largely confined to low-value, for-profit producers, triggering concerns about quality. In others, nonprofit institutions play a variety of roles. Private-sector quality, especially in the for-profit subsector, is often a concern.

In all countries—whether higher education is conceived as a market or as part of civil society, as in the United States, or is understood to be a branch or aspect of state—the most common location, the system boundaries, the stratification, and the division of labor between institutional types are ordered by governments or public authorities. Even private institutions are closely regulated, except in cross-border online education.

State–Institution Tensions

The continuous state–institution tensions play out in differing ways by country. A wide range of arrangements are in place, from systems where higher education is a branch of the state, university leaders are appointed by ministers, and faculty are paid as public servants to systems in which universities

are governed by independent boards or councils that appoint the executive leadership and fix rates of pay. In some countries, institutions select their own students; in others, the allocation of places is determined by government. Everywhere, however, institutions of higher education, in particular research universities, need partial autonomy. They must exercise their own scholarly judgment to be effective in knowledge production—in most countries academic freedom is seen as a normal operating condition for teaching and research, though the definition of academic freedom varies and manifestations of freedom can be contested. American tradition links academic freedom to tenured (permanent) employment and conceives of that freedom largely in terms of freedom from constraint or coercion by the state, but these are not norms in all systems—and in the United States, faculty can be constrained by university managers or by market forces. For example, companies supporting biomedical research via grants and contracts may seek to restrict research activity and the free flow of research findings. In East Asia, notions of academic freedom are closely joined to responsibility and conceived more in terms of positive freedom—that is, the freedom to act or enable—rather than negative freedom. Some conventions treat academic freedom as confined to the knowledge specialization of the scholar or researcher; others treat it as a general right to make public comments in any area. At the same time, states emphasize the utilities of institutions and seek to manage their autonomy within defined policy parameters and externally determined ends. In some countries, institutional autonomy and academic freedom are more restricted, especially in those countries in which university leaders are appointed by government.

Many governments now favor business and quasi-market models in institutional organization and system design, such as competition in the allocation of research funding and other resources, product formats, strategic executive leadership, financial autonomy for institutions, and expectations that institutions raise some of their own funding. In some systems, tuition fees have markedly increased in the context of a consumer model of institution–student relations. These measures have been accompanied by a weakening of professorial self-government, growth in the power of the university executive, and the growing role of the institution *qua* institution and of its brand, though the academic disciplines also continue to shape practices, especially in the

leading universities. The widely used triangle model of higher education developed by the sociologist Burton Clark, incorporating interaction between state, academic oligarchy, and market, requires modification to include the university executive as an influential factor. In some countries, the partial shift from state funding to private funding is associated with a weakening of government commitment to the public role of institutions. While most systems retain a policy commitment to securing broad social opportunity in higher education, this commitment rarely extends to providing equal access of all social groups to the leading institutions—social outcomes based on meritocratic competition still prevail. Though this is consistent with the market model, unequal social outcomes generate continued controversies.

Simon Marginson

See also *Bildung*; Confucius; Globalization and World Society; *House of Intellect, The*; Human Capital Theory and Education; Multiversity; Newman, John Henry (Cardinal)

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HIGH-STAKES TESTING

High-stakes testing is a significant aspect of educational assessment in much of the developed world. The phrase indicates that test results are being used to judge the quality of schools and teachers. Such judgments may have serious consequences for the individuals and institutions concerned.

Many feel that such a function for assessment is just one manifestation of an "audit culture" increasingly prevalent in contemporary society, where a variety of agencies and individuals are mistrusted and are believed to require intensive scrutiny to prevent them from "failing." The accountancy metaphor captures many fields, including health care, university research, and social services; they are "audited" by focusing on certain kinds of performance data. Critics argue that high-stakes testing corrupts learning and distorts the curriculum. In contrast, its supporters assert that it raises educational performance. This entry discusses the arguments for and against high-stakes testing, the reasons it is difficult to compare test results across time periods, whether "teaching to the test" skews results, and how the reliability and validity of tests are judged.

Defenders of high-stakes testing note the high cost of education, the importance of safeguarding children from incompetent schools and teaching, and the growing significance of education for competitive industrial economies in globalized markets. They argue that schools themselves should be only too willing to cooperate with our contemporary audit culture if they are genuinely committed to the highest possible educational standards. Champions of current testing functions claim that they play a crucial role in "driving up" educational standards; schools know that poor results will be exposed in published "league tables"—tables ranking schools by performance—and that the mass media will relish the opportunity to expose "inadequate" performers. Moreover, there is said to be strong public support for accountability focusing on tests and widespread appreciation of the easy availability of information about educational institutions in the form of exam grades. Some feel that teachers' very aversion to high-stakes testing suggests that they are afraid of rigorous scrutiny.

Claims about driving up standards are in need of careful scrutiny and analysis. There will be assumptions about what counts as changes over time, about how to detect them, and about what account of "educational standards" is defensible in the first place. Tests can either be *norm referenced*, where a pupil's ultimate grade reflects how well the pupil did compared with others who took the same test, or *criterion referenced*, where test responses are judged according to criteria purporting to describe relevant knowledge, understanding, and performance. Examples of the latter include "count up to 10 objects," "read and write numbers to 10," "decode familiar and some unfamiliar words using blending as the prime approach," and "show some awareness of punctuation marks, for example, pausing at full stops."

Only criterion-referenced tests could, even in principle, have the potential to detect real changes in educational achievements over time. On the face of it, we could discover, for instance, that more seven-year-olds can read and write numbers up to 10 than was the case a decade ago. Norm-referenced tests cannot do this: Grades reflecting how well a student did in comparison with fellow students on a particular occasion can tell us nothing about standards over time.

In some countries where high-stakes testing is combined with a criterion-referenced approach, examination scores have steadily improved. The United Kingdom furnishes us with some examples of this, in the form of National Curriculum tests taken by 11-year-olds and General Certificate of Secondary Education examinations taken by 16-year-olds. There is much controversy over how to interpret such trends. The phrase *grade inflation* is often used in this connection, and it implies that the "same" levels of knowledge and understanding are being awarded higher grades as the years go by. This interpretation is popular with many lay people in the developed world, who have the impression that each generation of school leavers does *not* know and understand more English, mathematics, and so forth than earlier generations.

However, a host of challenges confront any attempt to justify the accusation of grade inflation. Admittedly, in a high-stakes assessment culture, it is likely that teachers have grown more and more skilful at eliciting good test performances whether or not the pupils actually know and understand more. Yet the alleged divide in this supposition, between "real" knowledge and understanding, on the one hand, and test performance, on the other, can only be supported where the tests purport to measure underlying understanding, rather than factual recall or proficiency in observable procedures and skills.

One illustration of the latter might be questions about multiplication, offered rapidly by the tester with the requirement that pupils write their answer immediately. The former might be exemplified by questions involving word problems such as "Mum drives 143 kilometers altogether to visit her aunt. She stops after 47 miles for a coffee. How much further must she drive to reach her aunt?" Here, students must determine which combinations of arithmetical operations are required to arrive at the answer. Such problem solving seems to require an underlying understanding of the relevant arithmetical operations. Note also that at a deeper philosophical level, this whole narrative deserves a proper account of "underlying understanding" that explains how it differs from and yet is manifested by observable performances.

Some empirical researchers have investigated standards over time by repeating exactly the same test on randomly selected groups from each year's pupils. They compare these results with data from different kinds of tests where any one version is not absolutely identical with, but is devised to be "equivalent" to, previous tests. Suppose repeating exactly the same test provides scores that are steady over several years, while grades derived from the merely "equivalent" tests rise in the same period. This at least raises the possibility that the latter tests are afflicted by "grade inflation."

Since test results have been made to matter so much, many educators have felt compelled to *teach to the test*. Broadly speaking, this phrase captures teaching that maximizes pupils' chances of scoring highly in tests without regard to what they actually learn during this process. *Teaching to the test* also indicates teaching focused on the subjects and content to be examined, rather than on other unexamined subjects. So, for instance, in the English tests for 11-year-olds in England, "speaking and listening" have never been assessed. Hence, less attention is given to speaking and listening than to reading and writing.

It may be objected that criticisms of teaching to the test have been overblown and have failed to distinguish between significantly different kinds of learning and teaching. For instance, where specific skills and factual recall are concerned, teaching to the test would seem to be the obvious strategy. If a pupil needs to know irregular French verbs or how to play the scale of A minor on the piano, the kind of teaching that improves the chances of demonstrating just these facts or skills in the relevant test would

seem to be wholly justifiable. On the other hand, where the material to be learned very obviously cannot be comprehensively characterized in terms of skills and factual recall, teaching that exclusively focuses on *performance* does seem open to serious objection. Examples crucially involving some depth of understanding include the idea of a "fair test" in science, grasping the concept of a function in algebra, and appreciating the significance and influence of the contexts in which literary texts are written and received in English literature.

Nevertheless, some educators claim that teaching for understanding can, at one and the same time, be the most effective way to boost test performance in any case. The obvious difficulty here is that teachers under pressure from high-stakes testing find this claim hard to accept. Critics of high-stakes testing urge that verdicts on high-stakes assessment must be informed by realism about how teachers feel about the pressures they suffer.

Traditionally, tests are rated in terms of their reliability and validity. Reliability relates to the test's *consistency*. There are several ways of construing this feature, including whether, for instance, different graders would score a particular test paper in the same way or whether someone taking the "same" test on different occasions would obtain the same score each time. Validity concerns whether the test actually measures what it is supposed to measure. So a math test involving problems expressed in words, when administered to a group of pupils whose first language is not English, might not be a *valid* measure of their mathematics achievements, but instead, it may be a misleading indicator of their capacity to read and understand English.

One way of expressing the criticism of the kind of teaching to the test encouraged by a high-stakes regime is that it tends to corrupt the validity of the tests concerned. This criticism makes most sense where the tests purport to measure "real understanding," rather than mere observable performances, since much teaching to the test is held to concentrate on the latter. Of course, if the test is *intended* to measure skills directly, then the worry about corruption of its validity makes little or no sense.

Assessment experts have long debated a tension between test validity and test reliability. Evidently, where tests are performing a high-stakes accountability function, strong levels of reliability are crucial. Perfect reliability is, of course impossible, but schools and teachers expect high levels of consistency when their futures depend on it.

It may be argued that certain types of learning achievement resist consistent assessment. Yet it is not at all obvious that *all* such achievements are educationally unimportant. Candidates for learning of this kind involve pupils in making interpretations and value judgments. Consider, for instance, criteria drawn from English literature exams that include phrases such as *communicate content and meaning through expressive and accurate writing*, and *engage sensitively and with different readings and interpretations demonstrating clear understanding*.

Securing intergrader consistency in the face of such phrases requires examiners to reach uniform verdicts about pupil responses. How can such consistency be achieved? One expedient is for a grading scheme to specify readily observable or measurable proxies for the rich content concerned. For instance, *sophisticated use of sentence structures* might be translated into directly observable text features such as *varying length of sentences*, *using the active and the passive voice*, *beginning sentences with a variety of phrases*, and so on. Now, defenders of the possibility of consistency might dismiss this way of achieving it as manifestly absurd, deliberately designed to undermine their position. They may claim that professional graders can manage perfectly well without proxies, being quite capable of working together to achieve a suitable consensus in verdicts.

Yet such a consensus implies that graders are making very similar interpretations of the responses, backed by a remarkable coincidence in relevant value judgments. Arguably, this is at least suspicious, and if it results from some kind of imposition from an examination authority, it raises the question as to whose value judgment or interpretation would be regarded as definitive, and why. On the face of it, pupil responses of the kind under discussion *should* elicit a variety of reactions from examiners. If such variation is undermined, some would argue that the interpretations themselves are being corrupted.

Andrew Davis

See also Abilities, Measurement of; Accountability and Standards-Based Reform; Behavioral Objectives and Operational Definitions; Quality of Education; Validity, Types of

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HOMESCHOOLING

The modern phenomenon of homeschooling, or "home education," takes a variety of forms, but typically, it involves parents assuming primary responsibility for the schooling of their child—either by providing direct instruction themselves or by arranging learning opportunities such as online coursework, community-based programs, or selected classes from institutional schools. Although the United States has the largest number of homeschoolers by far (perhaps 4% of the school-aged population), the practice appears to be growing in many countries. Philosophical analysis is typically brought to bear on homeschooling in two ways: (1) theories of learning and (2) the relative interests of parents, children, and the state.

Perhaps the ultimate in individualized and privatized education, homeschooling challenges modern notions of institutionalized schooling and standardized curricula. Homeschoolers' varied practices reveal a wide range of philosophies of curriculum and learning. On one end of the spectrum is "unschooling," which relies on the child to direct the shape and direction of learning. Similar in some respects to institutional "free schools," where no formal curriculum is imposed and students decide what questions or topics to explore, unschooling is based on the conviction that children's natural

curiosity provides sufficient motivation and direction necessary for successful learning. By contrast, other homeschoolers choose to replicate the curricular and motivational structure of much institutional schooling, with fixed schedules and assignments. In contrast to unschooling, this structured approach to homeschooling views external requirements as necessary for learning. Not surprisingly, religious conservatives—whose typical views of "original sin" include children's motivations and behavior—tend toward the more structured end of the homeschooling curricular spectrum.

While philosophies of curriculum and learning obviously play an important role in the shape of homeschooling, the bulk of philosophical literature on home education focuses on its implications for the varying—and sometimes conflicting—interests of children, parents, and the state. Parents have an obvious interest in the education of their children; beyond wanting their children to gain academic proficiency, parents seek to instill certain values and commitments. Children themselves have interests at stake; besides intellectual skills, children need to develop a sufficient degree of personal autonomy—having an array of life choices, as well as the capacity to think and decide for themselves about those choices and the people they want to become. Finally, the state has an interest in the development of citizens who can contribute to society, both in terms of economic self-sufficiency and civic participation.

Philosophical arguments typically focus on the tensions sometimes inherent between these respective interests of parents, children, and the state. Parents may have educational goals and priorities for their children that conflict with their children's own best interests. For example, parents may envision a certain career for their son against his wishes or seek to foreclose certain life options for their daughter (believing that females should not be encouraged to have a professional career). Tensions can arise between the interests of the parents and state as well. In liberal democratic societies marked by value pluralism, the state depends not only on the development of economically self-sufficient citizens but also on individuals who can engage respectfully with fellow citizens representing a diverse array of values and ways of life. This educational goal may be in tension with familial, religious, or cultural beliefs that oppose such engagement. In extreme cases, for example, a homeschool parent might sequester the child from interactions with all but the most like-minded people.

Complicating the analysis of relative interests are often conflicting philosophical visions of the requirements of personal autonomy, in terms of what is necessary for both personal fulfillment and virtuous citizenship. In colloquial terms, autonomy can be said to involve thinking and acting for oneself, but liberal theorists differ widely on what exactly this means, not to mention what it would look like or how to determine whether it has been achieved. Some emphasize the ability to shape one's life course from an array of choices, which raises questions about what it means to freely choose. Other accounts emphasize careful reflection on one's beliefs and values, ultimately revising or affirming those core convictions.

Homeschooling is often the site of profound disagreements over the proper role of the state in ensuring that all children realize their interest in developing essential academic skills. Although there is little dispute, either philosophically or legally, that parents have the right and responsibility to raise their children, this consensus does not extend to parents' control over formal schooling. Many homeschool advocates contend that the educational realm should be understood as simply part of the broader framework of parental rights and responsibilities. But parental rights, like any set of rights, are not unlimited. In matters of children's basic welfare and the role of social service agencies, for example, parents have the right to raise their children as they see fit, and the state may not intervene unless compelling evidence exists that children are being abused or neglected. The burden of proof, so to speak, is on the state—parents are not required to submit yearly "child welfare progress reports." In the same way, homeschoolers often assert that parents' rights to direct their child's education should be infringed on only if there is evidence to suspect that they are neglecting this responsibility. Many theorists and legal analysts, however, draw an important distinction between schooling and parenting and insist that the burden of proof regarding homeschooling's effectiveness rests with parents—thus justifying more extensive state oversight.

Not only does homeschooling pose important philosophical questions as a particular educational practice itself, it also points to the increasingly complicated calculus of the state's role in children's schooling more generally. The rise of cyberschooling and distance education has begun to blur the boundaries between formal schooling and informal education in ways that make the oversight role of the state

less clear and more difficult to navigate. What counts as formal education—and what authority the state should have over it—is a question whose relevance will only increase as educational choices proliferate.

Robert Kunzman

See also Autonomy; Children's Rights; Citizenship and Civic Education; Learning, Theories of; Rights: Children, Parents, and Community; School Choice

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HOUSE OF INTELLECT, THE

Jacques Barzun (1907–2012), a noted American educator, used *the house of intellect* as the title of an influential book, first published in 1959. The house of intellect encompassed "the persons who consciously and methodically employ the mind; the forms and habits governing the activities in which the mind is so employed; and the conditions under which these people and activities exist" (Barzun, 1959, pp. 3–4). Many writers have since come to use the phrase as a loose synonym for the institutions of higher education. Barzun actually wrote about it with a more complicated, distinctive meaning.

Barzun's *The House of Intellect* exemplified his gift for engaging, lucid prose; his concern for the condition of education at all levels; and his questioning convention and fashion, all to strengthen important forms of thought and action. Barzun wrote about a collective capacity, intellect, which he thought was important yet poorly maintained. At the time, Barzun was provost of Columbia University, a cultural historian of great stature who could address a wide range of topics—from baseball and crime stories to Berlioz and all aspects of Western culture—to an extensive, nonspecialized audience. The phrase—*the house of intellect*—stuck, perhaps better than his diagnosis of its plight.

Barzun distinguished *intellect* from intelligence—intelligence was a universal trait of persons, but specific persons constructed *intellect*, a social force supported by special forms and institutions. Intellect was "intelligence stored up and made into habits of discipline, signs and symbols of meaning, chains of reasoning and spurs to emotion—a shorthand and a wireless by which the mind can skip connectives, recognize ability, and communicate truth" (Barzun, 1959, p. 5). The alphabet and its many uses typified the achievement and resources of intellect. The house of intellect had structure and furnishings, as well as component parts and routines, all of which needed care and maintenance.

Intellect had problems of its own making: its abdication of its virtues and capacities. Intellect was losing three strengths—(1) its status as a distinct group apart from others; (2) its abiding effort within to keep its working tools, particularly skills of literacy, in good order; and (3) its confidence that

> with a cautious confidence and sufficient intellectual training, it is possible to master the literature of a subject and gain a proper understanding of it: specifically, an understanding of the accepted truths, the disputed problems, the rival schools, and the methods now in favor. (Barzun, 1959, p. 12)

Readers often interpret Barzun as a conservative elitist, but doing so blurs what is unique in his thought. He generally spoke for matters such as intellect, which had direct and indirect value to all, and he criticized popular and elite developments that diminished them. With intellect, Barzun warned that art, science, and philanthropy were powerful forces abetting the internal weakening of intellect. Art liberated the spirit by celebrating ambiguities but harmed intellect, which could not maintain its standards of precision as devotion to art became too single minded. Science shared with intellect a commitment to precision, but it created difficulties because its jargons and narrow foci made the commitment to common knowledge more difficult. Finally, philanthropy, a pursuit of "free and equal opportunity as applied to things of the mind," weakened intellect's drive to precise discrimination and judgment.

Barzun's book addressed "the state of the language, the system of schooling, the means and objects of communication, the supplies of money for thought and learning, and the code of feeling and conduct that goes with them" (p. 6). These topics summarize well the concerns animating all of Barzun's writing over his long and productive career. For instance, through cultural history, his main professional calling, Barzun was exploring in one way or another "the code of feeling and conduct that goes with" thought and learning:

Superstition: *Race: A Study in Modern Superstition* (1937) and *Darwin, Marx, Wagner: Critique of a Heritage* (1941)

Romanticism: *Romanticism and the Modern Ego* (1943, expanded in 1961 into *Classic, Romantic, and Modern*) and *Berlioz and the Romantic Century* (2 volumes, 1950 and subsequent editions)

Music: *Berlioz, an Anthology on the Pleasures of Music* (1951) and *Music in American Life* (1956)

Art and literature: *The Energies of Art: Studies of Authors, Classic and Modern* (1956), *The Use and Abuse of Art* (1974), and *The Culture We Deserve: A Critique of Disenlightenment* (1989)

Aspects of popular culture, sympathetically appreciated: *God's Country and Mine: A Declaration of Love, Spiced With a Few Harsh Words* (1954), *The Delights of Detection* (1961), and *A Catalogue of Crime* (1971)

Biography: *Berlioz and His Century: An Introduction to the Age of Romanticism* and *A Stroll With William James* (1983)

These works led to his magnum opus, *From Dawn to Decadence: 500 Years of Western Cultural Life, 1500 to the Present* (2000), published at the age of 93. It is an innovative, comprehensive work on the codes of feeling and conduct in the thought and learning of the modern West.

Many of Barzun's other publications concerned "the state of the language" and "the means and objects of communication." These cultivated the value of literacy for the work of intellect.

The Modern Researcher (1957 and later editions)

Follett's Modern American Usage (1966)

On Writing, Editing, and Publishing (1971)

A Word or Two Before You Go: Brief Essays on

Language (1986)

Simple and Direct: A Rhetoric for Writers (1975)

Other books dealt with "the supplies of money for thought and learning," not simply their scale and source but also how the supplies could best serve the intellect:

Science: The Glorious Entertainment (1964)

The American University: How It Runs, Where It Is Going (1968)

Clio and the Doctors (1974)

Last, Barzun consistently expressed his commitment to clear and disciplined instruction; to effective, unencumbered teaching; and to curriculum that imparts the skills of intellect to all children:

Teacher in America (1945)

Begin Here: The Forgotten Conditions of Teaching and Learning (1991)

What Is a School? and *Trim the College!* (2002)

Among Barzun's many awards, in 2007, his hundredth birthday, he received the 59th Great Teacher Award from the Society of Columbia Graduates, a fitting recognition of his service in the house of intellect.

Robert O. McClintock

See also Adler, Mortimer, and the Paideia Program; Cultural Literacy and Core Knowledge/Skills; Liberal Education: Overview; Newman, John Henry (Cardinal)

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Human Capital Theory and Education

The notion of human capital in economics is associated with the names of the Nobel laureate Gary Becker (University of Chicago; born in 1930) and Jacob Mincer (Columbia University; 1922–2006). Their main contribution was to consider the decision to pursue schooling as an investment decision, which is different from consumption decisions.

Most students attend school because they are compelled to, especially at the early stages; however, a fraction of students may do so because they enjoy acquiring new knowledge or because of the social status associated with it. In both cases, we are unable to explain why a small proportion of individuals are willing to invest a large amount of money in order to attend prestigious colleges. Similarly, we are also unable to explain why the group of tertiary educated is socially selected (in terms of parental education, income, and/or wealth). If it were just a matter of tastes, the standard approach to consumption would predict that the more educated would have been those youngsters who attribute less value to leisure (and who, therefore, would suffer less in renouncing things such as sporting activity and game playing).

There is of course some truth in this perspective—as for any consumption commodity, the demand increases with disposable income and decreases with the relative price. Richer people demand more education, but the overall demand decreases at later stages of education (since these are more expensive). This explanation, however, is at odds with the fact that people attend schools at earlier stages of their lives despite being richer at later stages.

Here is where the notion of schooling as an investment proves its value in accounting for these observed behaviors. The basic economic underpinning for any investment decision is giving up current opportunities in exchange for future advantages—an investor renounces current consumption in exchange for greater consumption in the future. In the case of educational choices, current income opportunities are renounced in exchange for better income prospects in the future. The decision to remain a student (especially at the secondary or tertiary level) is compared with the alternative of immediate entry into the labor market; and the opportunity cost of forgone income (namely, the potential earnings of working if one forgoes further education) are compared with the future prospects of the wages to be earned as a more highly educated worker.

Thus, the time spent in school (and the correlated amount of knowledge that is presumed to be accumulated) is the resource that is invested by any individual who aims to improve his or her future income prospects. This choice is undertaken under conditions of uncertainty, since no one knows what the labor market situation will be in the near future. For this reason, people rely on expectations by observing the existing wage differential in the labor market. In the Organisation for Economic

Co-operation and Development countries, the so-called college premium (namely, the percentage difference in earnings between tertiary-educated and upper secondary school graduates of the employed population between the ages 25 and 64) was 55% in the year 2010 (Organisation for Economic Co-operation and Development, 2012). Thus, any youngster completing secondary school has to compare the alternative of immediate entrance in the labor market (where additional knowledge is also accumulated through learning by doing) with spending three to five years in college, in exchange of an estimated increase by half of the earnings over the course of the working life.

In principle, this opportunity is open for unlimited school attendance; but the return on acquired human capital has to be recovered over the remaining working life. This is not in contradiction with the fact that most college graduates do not apply for a second or third degree, knowing that losing additional years out of the labor market would not be compensated for by the potential gains.

Under appropriate assumptions, one can estimate the expected return associated with an additional year of schooling. By comparing the income streams over the entire lives of two otherwise identical individuals, one can statistically obtain the internal rate of return that would make them indifferent between the two alternatives. This procedure is usually indicated in the literature as a *Mincerian wage equation*. It has been repeatedly estimated for many countries, age cohorts, genders, and ethnic groups; the results obtained are of the order of a 4 to 12 percentage point increase for any additional year spent in school.

Given the size of the premium, one may wonder why we do not observe a massive demand for schooling in every country and for every age group. The main economic explanation makes use of two concepts: (1) *ability endowment* and (2) *liquidity constraints*. The first one considers that the learning of additional knowledge takes place at different speeds for different individuals. Thus, the brightest students accumulate more knowledge in a given amount of time compared with the less able. In many respects, this is also true when we replace the notion of ability endowment with the notion of family background. Thus, the speedier a student is, the lower will be his or her cost for acquiring education, and other things being constant, she or he will stay in school longer. The other source of individual heterogeneity derives from different access

to financial resources: Postponing entrance into the labor market requires funding to provide support during the period of study. In addition, tertiary institutions charge tuition fees that also need to be financed. Financial markets are typically reluctant to provide such funding, since poor individuals can provide no collateral.

A final assumption supports the notion of human capital. Educated workers will earn higher wages if and only if they are more productive from the point of view of the potential employer. By inference, countries with more educated labor forces should experience higher incomes. Unfortunately, empirical evidence is rather inconclusive in this respect. One possible reason is associated with the distinction between *quantity* and *quality* of human capital. Given the increasing availability of data on student test scores, some authors have studied the correlation between gross domestic product and average students' achievements in the same countries, even controlling for the average years of schooling in the population. The underlying intuition is that just spending time in school does not necessarily translate into the acquisition of additional knowledge, for this depends on factors such as quality of the teachers and the school management. The empirical evidence does not contradict this intuition.

Overall, the human capital paradigm is nothing more than an analogy, though a convenient one. We do not have compelling evidence that education increases workers' productivity per se. In general, education induces self-sorting of individuals, who therefore differ not only with respect to the education they have acquired but also with regard to many other unobservable characteristics that may be valuable for a firm. Suppose, for example, that self-consciousness favors the acquisition of education, and for similar reasons reduces absenteeism among workers; firms, then, will demand self-conscious workers because they are more productive (i.e., they display less absenteeism), and the workers themselves will also be more educated.

This opens the door to the competing explanation for the positive correlation between schooling and earnings, which is found in the data: the *signaling theory.* In this framework, employers aim to attract abler workers, but ability is not observable. So if abler workers can find a way to signal this, and if their behavior cannot be copied without cost by less able workers, then in a condition of equilibrium, we should observe that abler workers emit such a signal (e.g., signaling that they possess a degree or a school certificate). According to this theory, then, education is worthless from a productive point of view, but it helps in the screening of individuals.

Daniele Checchi

See also Capital: Cultural, Symbolic, and Social; Education Production Functions

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IDENTITY AND IDENTITY POLITICS

Identity—who we are—is often taken for granted; our sex, gender, sexuality, race, ethnicity, nationality, and so on constitute "who we are" and make us ourselves. Social theory, however, problematizes this commonsense notion of identity by asserting that identity is inextricably bound up with social categories and social relations, categories and relations that are themselves caught up in each other. The emphasis is on the way the social world has an impact on and shapes identity.

A concern with identity in educational studies often is also a concern about a range of enduring inequalities and the way particular sorts of inequality are attached to particular identities—for instance, women and wages, or minority ethnic students and educational outcomes. The issues are not always straightforward. There is significant ongoing academic debate as well as political struggle over what actually counts as inequality, which groups are experiencing inequality, whether inequalities are getting better or worse, and how inequality can be measured. In relation to education, there has been sustained debate over whether race or social class is a key axis of inequality and whether girls really are outperforming boys, and, if they do, where and when they do so and whether this is an advantage that is sustained in later life. Even when the identity group of concern has been settled on, there can be further contestation over the mechanisms through which inequalities are produced, namely, about whether these are the result of structural, systemic, institutional, and/or professional practices or whether they are the result of the characteristics or properties of the groups themselves. This latter approach is criticized for suggesting deficits within the individuals, groups, or communities that face the inequality in questions—it is seen as a "blame the victim" approach. This entry discusses the rise of identity politics during the 1960s and 1970s, the tension between concepts of identity as the essence of a person or as a construct, constructionist and poststructural approaches to identity, and research on how identity categories create educational advantages and disadvantages.

Identity politics arise out of demands to address the inequalities experienced by particular identity groups. Historically, we can identify the movements for women's suffrage and the abolition of slavery as early instances of politics attached to identity. Identity politics took off, though, in the 1960s and 1970s, when the Black civil rights movement, second-wave feminism, and the gay and lesbian movement all engaged in political struggles over the inequalities their members faced. Often referred to as new social movements, groups engaged in identity politics make claims concerning legal rights and material redistribution, as well as social recognition and equal treatment. That is, these new social movements engage in both material and cultural politics; and the activities of these movements have coincided with struggles for self-determination or nationhood for indigenous and colonized peoples around the world. Here, claims to political and land rights are often tied to the demonstration of a particular identity that is not social or mobile but is fixed and inheres in the person in an

abiding way—that is, an identity that is the essence of the person. This highlights a significant tension in concepts of identity—identity as essence or identity as construct—and in identity politics—claims based on an essential identity or claims based on contesting the dominant meanings attached to an identity.

This tension suggests some of the limitations of constructionist approaches to identity, inequality, and politics. First, while new social movements have shown how apparent essences naturalize injustices and locate these in the "nature" of the groups concerned, the rejection of essence is not universally beneficial. Second, constructionist approaches deflect essences rather than wholly undercut them. Third, constructionist approaches do not in themselves ensure that responsibility for inequalities will be located in social contexts rather than in individuals. Finally, these movements are typically concerned with a single identity and do not account well for the relationship between the multiple identities an individual might possess. Conceptual and political interventions that follow the work of Kimberlé Crenshaw and call for attention to the intersectionality of identity categories have made a major contribution to addressing this last problem; but, with a range of conceptual approaches to these categories, intersectionality does not necessarily resolve these other problems.

Poststructural approaches to theorizing identity have offered a significant response to the problems of constructionism by foregrounding language and meaning, in particular as this is organized in bodies of knowledge, or discourses. A key argument made by poststructural thinkers such as Jacques Derrida and Hélène Cixous is that identity categories function as binary pairs where sociocultural meaning is set in hierarchical relationships: man/woman, White/Black, heterosexual/homosexual. There are two key points here. One is that while these binary pairs are hierarchical, they are mutually dependent; the meaning of each member of the binary depends on the other. This suggest the second key point—the meaning of the dominant member of a binary is suggested by what it is not, the subordinate other against which it is compared and over which it asserts itself; man is *not* woman. This exposes the fact that meaning is constantly deferred as further hierarchical pairs are recognized: phallus/uterus, hardness/softness, rationality/emotion. All this involves a fundamental challenge to the idea of an abiding identity—the "postmodern" self is "decentered." In this framework, the individual who is self-knowing

and reflexive is produced by the knowledge about that individual and about individuals and populations that circulate in particular sociohistorical contexts. These knowledges are linked to and implicated in relations of power, and they are simultaneously individualizing (Michel Foucault's anatomo-politics) and totalizing (Foucault's bio-politics).

In this conceptual framework, identity categories are parts of the discursive repertoires that make and/or reject particular sorts of individuals. According to Foucault, the person is *subjectivated*; she or he is made subject to relations of power and simultaneously made as a subject. The subject's sense of self—his or her subjectivity and self-identification—depends on being recognizable to, and being offered recognition by, other subjectivated subjects and subjectivating discourses. Judith Butler extends this idea by considering the way "performatives"—utterances that make the thing that they name—make particular sorts of subjects. If we see the classifications that make up identity categories as performatives, we see that "girl" does not describe the girl; it makes her a "girl."

The move from identity to the subject signals a significant conceptual and allied political shift. This subject is subjected by and in relations of power, but she or he can also engage in performative politics that resist, and shift, the discourses that constrain herself or himself. This subject can act politically, but within the constitutive constraints of the discourses and relationships that offer him or her recognition. A performative politics pushes at the limits of recognition as it troubles and misappropriates performatives and insists on subordinated and silenced meanings. In queer politics, the issue is not "who" we *are* but what we *do* as we engage in practices that might *undo* the apparently self-evident identities imposed on us through the performative.

In education, this leads to conceptual and empirical research, including action research, which interrogates how the constraints of normative identity categories create educational advantages and disadvantages, and experiments with ways in which these normative modes and subjects can be exceeded and unsettled. These poststructural politics have supplemented the identity politics associated with new social movements, at least at the leading edge of theory and activism. Yet liberal pluralist approaches to identity and equality that make claims to inclusion and recognition inevitably create a new "outside." These approaches continue to dominate policy and mainstream politics, as

well as common sense. And poststructural politics are vulnerable to reappropriation by these liberal pluralist approaches.

In a move that further unsettles identity and sidesteps these reappropriations, the work of Gilles Deleuze suggests a politics that is antisubjectivation. This sees subjectivation as part of the assemblage of forces that produce social formations. This means that identity politics are already contained and leads Deleuze to think about other political forms including "lines of flight" and "becoming-revolutionary." Perhaps conversely, Judith Butler has turned her attention to the binary of the human and the not human. In the context of the War on Terror, she has asked whose life is recognized as human and whose life and death are recognized as "grievable," to understand how human life is constituted as precarious and how for some recognition as human is foreclosed. She suggests a politics that builds new collectivities concerned with the constitutive force of forms of governance. Current theoretical and popular concerns are also reengaging the biological and material. New Materialism takes up Deleuzian ideas to foreground the affective and bodily as well as the productive forces of nonhuman matter and objects. At the same time, neuroscience and genetics renaturalize the characteristics of individuals and population groups that constructionist theory and poststructural politics have sought to radically unsettle. While New Materialism and neuroscience have vastly different intellectual histories and agendas, they share a rejection of the discursively constituted subject as the central concern, agent, or locus of action. While the productive force of objects is unlikely to move to the core of public thinking, neuroscience and genetics are almost certainly going to be the crucible in which struggles over who we are and who we get to be are fought in the coming years.

Deborah Youdell

See also Apple, Michael; Critical Race Theory; Ethnicity and Race; Feminist Standpoint Theory; Gender and Education; Postmodernism; Social Constructionism

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IDEOLOGY

The term *ideology* refers to a system of ideas and beliefs that is dominant within a group or society, and that affects most if not every sphere of social interaction and organization within it—political, economic, scientific, educational, and cultural. Thus, the Nazis had an ideology, and so did the Communist Party in the former USSR (*Union of Soviet Socialist Republics),* and so, too, does the "Tea Party" on the right and the Democratic Party on the left in American politics. The term evolved during the last decade of the 18th century and has grown to have a wide range of epistemological, theoretical, and historical meanings and interpretations.

The origins of the concept ideology can be traced to 18th-century French philosophical thought. The term *idéologie* ("ideology") was coined by the French philosopher Destutt de Tracy in 1795 to

define ideas that were to be used in clarifying and improving public debate; in particular, he wanted to provide the necessary rational foundation for the critique of the dominant intellectual and political traditions that defined his era. He created the term by combining the Greek *idea* ("form") and *logos* ("knowledge"). During the 19th century, *ideology* was used by numerous philosophers and social thinkers in Europe, and the term now has numerous meanings and interpretations. Terry Eagleton (1991) refers to 15 possible senses of "ideology"; accordingly, on his account, the term *ideology* is difficult to define precisely, since it should be perceived as a text, woven of a tissue of different conceptual strands. Within this multiplicity of meanings, however, one stands out—the concept of ideology is closely connected with power, with domination, and with control and justification of a political system. It should be apparent that educational institutions play a significant role in promulgating a society's dominant ideology (see the work of Michael Apple)—and under some circumstances in fostering awareness and generating resistance (the work of Paulo Freire is a good example here).

The core sense of the term is quite apparent in Marxist and neo-Marxist writings where, from a class conflict and structural-functionalist perspective, "ideology" refers to a core set of ideas and values that consolidates and legitimates the existing economic system and relations between social classes. The main function of the ideas constituting the ideology is to maintain the status quo of the economically, socially, and politically stratified society.

Ideology in Marx

In the works of Marx and Engels, especially in *German Ideology* (written in 1845–1846 but published for the first time in 1932 by the Marx-Engels Institute, Moscow), the term *ideology* was defined as the "production of ideas, of conceptions, of consciousness" (Volume 1, Part I, A) and as the ideas of the ruling class: "The ideas of the ruling class are in every epoch the ruling ideas" (Volume 1, Part I, B). The term *ideology* also was linked to "false consciousness," or an erroneous perception of reality (which, of course, includes social arrangements and organizations)—in other words, Marx recognized that it was functional for the ruling class to promulgate "false consciousness" in individuals in the subordinate classes, by getting them to believe the accounts, arguments, and justifications that were

part of the society's ideology. In a Marxian sense then, ideology signified a new way of explaining how the structure society—its social classes, institutions, and so on—had originated and had been maintained.

Ideology in Gramsci

Antonio Gramsci (1930), the Italian Marxist philosopher and political theorist, furthered the development of the concept of ideology by introducing his concept of hegemony, wherein the political power of ideology as a justificatory system of ideas is based on consensus rather than force or coercion exerted by a hegemonic, ruling class. The subordinate classes for some time had (in Gramsci's view) consented to their own domination rather than having been forced or coerced—the ideology had become accepted as painting a true picture of reality rather than being seen as a tool of oppression used by the ruling or hegemonic class. Eagleton (1991) suggests that Gramsci was "an historicist Marxist who believes that truth is historically variable, relative to the consciousness of the most progressive social class of a particular epoch" (p. 121). However, Nicos Poulantzas (a structuralist Marxist) argued that the nexus between the dominant ideology and a hegemonic class is indirect: It passes through the mediation of the total social structure, where the dominant ideology *reflects* that unity rather than *constituting* it. (It is worth noting that there are similarities with Plato's thought here; in his *Republic*, the ruling elite, the Guardians, justify the stratification of the society into three classes by promulgating a "noble lie," the myth that individuals are born with one of three metals in their character; at first, this story is greeted with disdain, but within several generations, it becomes accepted as a true account. It seems as if Plato not only hit on the notion of a justificatory ideology but also foresaw Gramsci's point about this eventually not having to be promulgated by coercion.)

Ideology in Mannheim

Mannheim (1936) used the term more systematically in his *Ideology and Utopia*, where he attempted to analyze the nexus between ideology and social relations, with reference to social classes. Mannheim used the term *ideology* to highlight the ideas that support the status quo of a given society. Mannheim has shifted the meaning of the term to include both "general" and "total" ideologies and argued that all ideologies derived from society and social interaction.

Ideology in Adorno and Marcuse

Theodor Adorno (1973), from the Frankfurt School of critical theorists, attempted to find and locate the essence of ideology by reexamining Marx's theory of commodities and the concept of exchange value. By focusing on the self and identity, Adorno and other critical theorists at the Frankfurt School maintained that identity was the "primal form" of all ideology (Adorno, 1973, p. 161). Similarly, Herbert Marcuse (1964), in his classic *One-Dimensional Man*, argued that commodities define one's social identity, followed by "absorption of ideology into reality" (p. 11), and that "the people recognize themselves in their commodities; they find their soul in their automobile, hi-fi set, split-level home, kitchen equipment" (p. 9).

Ideology in Althusser

The French Marxist philosopher Louis Althusser (1972) developed the concept of ideology further. In defining the term *ideology,* Althusser, influenced by Jacques Lacan, a noted French psychoanalytic theorist, suggested that ideology does not reflect reality as it exists but represents "the imaginary relationship of individuals to their real conditions of existence" (Althusser, 1972, p. 162). This implies that individuals, as social actors, receive their knowledge of who they are from how others respond to them. Lacan's seminal principle of "the dialectic of recognition" (between imaginary and real) influenced Althusser's redefinition of the term *ideology*. He argued that ideology controls individuals and societies through repressive state apparatuses, or ideological state apparatuses, consisting of major agencies of socialization (e.g., political education, religion, the family, the legal system, culture, and the mass media).

Ideology in Jameson

The more recent poststructuralist and postmodern reinterpretation of the term *ideology* is in the work of Fredric Jameson (1991). He, like other neo-Marxist theorists, was influenced by Jacques Lacan's distinction between reality and "the Real" to understand "ideology." He redefines ideology as "the representation of the subject's imaginary relationship to his or her real conditions of existence" (Jameson, 1991, p. 51). He argues that there are numerous ideologies or ideological dominants. Applying Raymond Williams's (1977) typology of ideologies—residual (traditional), emergent (new),

and dominant (existing)—Jameson advocates such a model as necessary for a better and more coherent understanding of ideology as a cultural dominant.

Ideology and Its Functions

As a result of the rapid economic, political, and social change that takes place when society is in flux, individuals experience a crisis of identity and look for people or symbols that offer security, safety, and a sense of belonging. In such cases, the ideology can offer such individuals a new sense of identity and belonging, as it did for former citizens of the USSR after its collapse in December 1991 (see Function 5, below). The functions of ideology can be summarized as follows:

1. The first and defensive function of ideology, as the process of legitimation, as "meaning in the service of power," and as the "ways in which meaning serves to establish and sustain relations of domination" (Thompson, 1990, p. 5), is to legitimate, justify, and consolidate the power of a dominant social group or class.

2. The second function, in terms of Marxist and neo-Marxist reproduction theories, is the continual reproduction of economic relations, to maintain the continuous dominance of the ruling class.

3. As described by David Easton (1965), a third function is to offer individuals a sense of identity and belonging by providing "articulated sets of ideals, ends, and purposes, which help the members of the system to interpret the past, explain the present, and offer a vision for the future" (p. 290). Easton explains that ideology can be used as "ethical principles that justify the way power is organized, used, and limited and that define the broad responsibilities expected of the participants in the particular political relationship" (p. 292).

4. The fourth function of ideology, as "the integrated assertions, theories, and aims constituting a politicosocial program" (Geertz, 1964, p. 47), is used by leaders to justify their actions and policies and to imbue them with the values of truth and justice.

5. The fifth function of ideology, as political, economic, and cultural beliefs, is to offer a universal set of core values that help create a sense of consensus in the nation-building process and a sense of shared identity.

6. The sixth critical and future-oriented function of ideology is to give meaning and a sense of purpose to alternative groups challenging the state.

Joseph Zajda

See also Apple, Michael; Critical Theory; Freire, Paulo: *Pedagogy of the Oppressed* and Critical Pedagogy; Marx, Karl; Plato; Reproduction Theories

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IMMIGRANTS, EDUCATION OF

An immigrant is a person who has consciously decided to leave his or her country of origin and take up residence elsewhere, namely, a country of settlement, with the view to acquiring legal status and employment. Global markets and knowledge-based economies, and also political oppression and famine, are important driving forces of immigration around the world; but other motivations include marriage, family reunification, cultural affinity, and the pursuit of higher education. Though expressed in different forms, in the host countries immigration policies have to varying degrees of success endeavored to promote within immigrants strong cultural and national identities favored by the majority group.

Immigration can be observed on all continents, though here the focus will be exclusively on immigration as it occurs in the Western hemisphere. This focus is adopted because patterns of immigration more routinely move from East to West (and South to North) and because it undoubtedly is in the West that the most elaborate and varied responses to immigration have transpired and continue to do so, particularly in the educational sphere. Nowhere have immigration and its relationship to education been more exhaustively studied than in the United States, for reasons that will be obvious: Owing to its enormous size and population, and also its founding myths and ideals, for millions the United States continues to be the land of immigration par excellence. Accordingly, migration and immigration studies elsewhere borrow heavily both from theory and from data generated in the United States. Nevertheless, migration and immigration studies have become a discipline in their own right in Australia, Canada, New Zealand, and most European countries. This entry discusses theories about assimilation and acculturation, educational efforts to integrate immigrants, and theories about immigrant students' performance in school.

Though vocabulary choices sometimes vary, particularly between Europe and North America (the former preferring the language of *integration*), two central concepts warrant special attention: assimilation and acculturation. Classic *assimilation* theories postulated four distinct phases: contact, competition, accommodation, and ultimately assimilation (implying a jettisoning of one's previous cultural attachments in favor of the dominant norms). All host societies reasonably expect immigrants at a minimum to adopt a working knowledge of the dominant language, to embrace its laws and many of its cultural values, and finally to contribute in various ways to the local economy. But historically, assimilation often has entailed concerted efforts to discourage minorities from retaining their language, culture, and religion and the expectation that minority groups will integrate into the mainstream.

Classic assimilation theory, long portrayed as a straightforward linear process, is now passé. Groundbreaking work in the early 1990s by Portes and Zhou (1993) provided researchers with a

modified version they dubbed "segmented assimilation," and this model now dominates immigration and migration studies. The authors argued that adaptation to immigration was a two-way process; both the immigrant communities and the mainstream society undergo change. Furthermore, in adjusting to their new circumstances, immigrants and their children avail themselves of a variety of adaptive strategies. Some, partly owing to their skin color, social class background, language proficiency, and educational attainment, experience upward mobility by gradually assimilating into the mainstream, with many adopting middle-class norms. Others find ways of adapting not through assimilating into the mainstream but rather through "selective acculturation," entailing solidarity with one's own immigrant community or ethnic group (Portes, Fernández-Kelly, & Haller, 2005; Zhou, 1997).

Acculturation refers to "the dual process of cultural and psychological change that takes places as a result of contact between two or more cultural groups and their individual members" (Berry, 2005, p. 698). Though a great deal of variability can be observed, acculturation involves mutual adaptation and accommodation; it may also involve "reactive" elements. In other words, acculturation does not inevitably entail yielding to the dominant culture; it can also lead to more pronounced identity expressions that involve recovering, or even discovering, attachments that stand in contrast to mainstream cultural norms. For example, ethnic or religious identities may solidify and strengthen—rather than diminish over time—as part of the acculturation process. So while groups may accept and even excel at many external features deemed important for fitting in with the society of settlement, among them educational and economic success, strong cultural identities and attachments to the country of origin may even be accentuated as groups navigate their way in their adopted homeland. In some cases, customs and traditions are passed down for many generations without losing much of their cohesive function, even as younger generations feel less attachment to the country of origin, increasingly adopt the dominant language, and may either discard or transform other cultural practices.

Which processes occur and how they unfold will depend in part on the degree of conflict between the immigrant communities and the host society; owing to linguistic, cultural, religious, and sometimes social class differences, both conflict and disadvantage can arise that may or may not attenuate over time as immigrants adapt to mainstream norms. For example, in schools, a number of misunderstandings may occur or discriminatory actions taken against certain minority groups that initially produce failure. To the extent that members of a group experience discrimination and identify with other—perhaps indigenous—stigmatized groups, one may speak of "dissonant acculturation" or "cultural discontinuity" in terms of a downward spiral, the result often being stigma, disadvantage, and even social exclusion. Of course, none of these outcomes are automatic. Much depends on the institutional features and prevailing attitudes of the host society, the characteristics of the group in question, and, of course, the personal traits and motivations of individuals. Whatever the case, strategies of adaptation for immigrants to new contexts is inevitably a two-way street. Moreover, irrespective of the challenges and hurdles, most immigrant groups have proven quite proficient at adapting to their country of settlement to one degree or another.

Educating Immigrants

The challenges and opportunities associated with the education of immigrants predate modern school systems, though it certainly can be said that support for public schooling grew—for example, in Canada and the United States—as dominant (read White, Anglo-Saxon, Protestant) groups came to see the importance of integrating masses of disparate origin. Educational responses to the children of immigrants over time have been varied, and many responses are indistinguishable from efforts to address other minority groups. In North America, the rapid expansion of immigration encompassing immigrant and refugee populations from around the world, particularly since the 1960s, has led to a number of structural and curricular changes in schools, only some of which were explicitly aimed at immigrants. One example of a policy aimed at the children of immigrants was bilingual education, and as this increasingly fell out of favor, ESL (English as a second language) classrooms became more common. However, with few exceptions, neither has been a very effective instrument for addressing the interests or concerns of immigrants themselves. Nevertheless, most parents strongly prefer that their children learn to master the dominant language, as a means of getting ahead (Glenn, 1996; Olneck, 2009).

In both Europe and North America, various efforts have been made to implement intercultural encounters and to revise historical narratives to

make them more inclusive of the stories of indigenous and immigrant minorities, and in these ways promote "intercultural awareness" or "culturally responsive" teaching. Yet notwithstanding lip service given to multicultural goals at the level of policy, on the ground, there is very little evidence to suggest that alterations to the public school curriculum amount to much more than window dressing and stereotypical gestures (e.g., occasional celebrations of different cultural attire, food, and music). Where educational responses are more substantive, these often are in private contexts that have fewer curricular constraints and enjoy strong community support. The lack of substantive progress in both Europe and North America is due to several factors:

1. The socio-ethnic stratification of minority pupils both between and within schools
2. The sorting and selecting mechanisms schools use
3. The vagueness of learning objectives
4. Self-selection by peer group
5. The lack of adequate training of teachers and the lack of correspondence between a majority of teachers and their pupils in urban districts
6. Increased focus on testing and core subjects
7. Parental resistance
8. Severe budgetary constraints

Whatever the drawbacks and unsettled disputes, the first generation of immigrant children continue to grow up learning the language of the host country at school (to be sure, some better than others), though many continue to speak the language of their parents at home. For many children of immigrants, there is a dual frame of reference and a strong motivation to succeed given the sacrifices their parents have made. Many may even experience school more positively than other minorities actually born in the country. Meanwhile, others find themselves caught in a cultural dilemma: Unable to identify with the host country (except in crude consumerist terms) and also unable to identify with the country of their parents, with its traditional customs and folk religion, some experience great difficulties in developing the feeling that they belong (Bankston & Zhou, 2002; Matute-Bianchi, 1991; Perlmann, 1997). For some this leads to new hybrid identities, while for others the combination of disaffection and school failure creates a set of problems that are manifest more in some groups than in others.

Theoretical Responses

Many theoretical approaches applicable to the education of immigrants were not specifically developed with immigrants in mind but rather were focused on indigenous minority groups or descendants of slaves. Attempting to explain the reasons why certain minorities were falling behind at school, theories of cultural deficit in the 1960s quickly yielded to cultural difference alternatives, stressing diverse forms of cultural capital that are simply not valued in school. Others attempted to explain differential treatment of various working-class and minority groups in schools using the tools of Marxism, the resultant analysis being that schools reproduce the social-class backgrounds of their pupils owing to the organizational features of schools, the middle-class expectations of teachers, and the sorting and selecting mechanisms schools use. Eager to cast aside some of these rather determinist forecasts for working-class and minority students, and moreover, inspired by the work of Paulo Freire, resistance theories resurrected the centrality of *agency*. More recently, in response to high levels of segregation, a theory of "voluntary separation" has been developed, arguing that spatial concentrations of even stigmatized minority groups—many of which began as immigrant communities—can turn their segregation to their advantage when they resist, rearrange, and reclaim the terms of their segregated experience. Here, the success of immigrant and minority groups explicitly does not depend on integrationist strategies but rather maintains that communities and schools can be arranged that promote important forms of equality, enhancing well-being and self-respect. Furthermore, voluntary separation can facilitate the cultivation of civic virtues that promote the good of the community (Merry, 2013).

But there can be no doubt that the work of John Ogbu has left an imprint on the field of immigrant education like no other. He argued that to make sense of why some minority groups on average perform better or worse in school, one must look at the relevant variables *outside* the school. It is the *community forces* behind these students that illuminate general patterns in school success or failure. Community forces broadly describe how different groups perceive, interpret, and strategically respond to schooling in ways that correspond to their unique histories and adaptations to their minority status.

Ogbu's work is perhaps best known for a typology he created to describe different minority

orientations to dominant culture generally and to education specifically. Though developed to explain the situation of immigrants and other minorities in American culture, his typology has been reinterpreted and applied around the world. It consists of the following categories: *semivoluntary* minorities (e.g., asylum seekers), *autonomous* minorities (self-sufficient groups that no longer face high levels of discrimination), *voluntary* minorities, and finally *nonvoluntary* minorities. Ogbu focused most of his attention on the last two categories.

Roughly speaking, voluntary minorities, namely, immigrants, experience strong academic achievement for several reasons:

a. They are seeking opportunity and are optimistic about achieving it.
b. They have a dual frame of reference, one that casts their country of settlement in a more favorable light.
c. They hold the view that obstacles encountered, such as discrimination and prejudice, are temporary and can be overcome with tenacity and hard work.
d. The orientation toward the school and other social institutions is one of "pragmatic trust," that is, schools are seen as purveyors of the knowledge, skills, language, and behaviors necessary for social mobility. Accordingly, a kind of meritocracy is internalized by this group, enabling success.

Meanwhile, *involuntary minorities* (also named "caste-like minorities") describe persons either forcibly conquered (indigenous groups) or brought against their will to an alien context (slaves and their descendants). These groups have been stripped of their primary cultural traits and forcibly assimilated. "Oppositional" orientations and patterns, on Ogbu's theory, will be commensurate with the degree of negative experiences and distrust experienced. Owing to a long history of institutional racism, their experience with discrimination, and the perception that education will not yield a payoff in the labor market, many minorities fitting this category develop oppositional attitudes toward school and, together with similar peers, may even come to see certain markers of identity (e.g., speech patterns, unrecognized cultural traits, performance, and dress) as something to be maintained rather than surrendered to mainstream expectations.

Though Ogbu's typology is somewhat fluid and has come under considerable criticism, its influence on the field of immigrant education remains uncontested and its theoretical strength lies in its comprehensiveness and cross-national applicability in explaining school success and failure among different types of minority groups. Of course, as with all theories, many exceptions to the rule can be found, and as this applies to immigrants in particular, some immigrant groups do extremely well, while others do not, notwithstanding their "voluntary" characteristics. For critics, predicting educational outcomes simply is an elusive task owing to complex identities and attachments, as well as varied structural processes and interactions in school. But critics largely agree with Ogbu that any attempt to understand school success or failure must look at what happens *in* the school as well as *outside* the school. School characteristics certainly matter: the student–teacher ratio, demographic concentrations, the organizational structure, finance schemes, leadership, teacher qualifications and expectations, mobility rates, the curriculum, disciplinary procedures, peer groups, and so on. All of these make for a complex portrait of school life. But features outside the school matter just as much if not more: neighborhood characteristics (crime rates, safety, and public services), family characteristics (educational attainment, divorce, abuse, nutrition, intimacy, social aspirations, structured free time, first language, etc.), and cultural forces emanating from the group in question. Furthermore, the immigrant status (country of origin but also destination), generational status, size of the local community, and perceived or experienced prejudice also affect the overall quality of life and influence the opportunities one may or may not have. Other variables to consider include the degree of acculturation, the language used at home, relationships with teachers, the influence of peer groups, parental beliefs, modeling, and involvement with a child's education, and finally the level of trust and assent persons experience vis-à-vis the existing opportunity structures.

Michael S. Merry

See also Assimilation; Bilingual Education; Citizenship and Civic Education; Freire, Paulo: *Pedagogy of the Oppressed* and Critical Pedagogy; Multicultural Citizenship

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Indian Religious and Philosophical Traditions and Education

Indian philosophy and religion will initially seem alien to the outsider. However, behind the initial strangeness, there are shared concerns and common issues that can help us see familiar issues in new ways. Indian philosophy and religion include traditions that have their birth on the Indian subcontinent (including present-day India, Pakistan, Bangladesh, Sri Lanka, and Nepal)—omitting the transplanted traditions (Islam, Christianity, and Zoroastrianism). Hinduism, Buddhism, Jainism, and Sikhism are major Indian religions; there are nine major philosophical schools, or *darsanas*. This entry introduces basic elements of Indian philosophical and religious thought and briefly comments on the value of Indian philosophy for contemporary educational thought. Due to space restrictions, it will focus on classical Hindu and Buddhist traditions, saying little about Jainism and Sikhism, despite their importance.

Basic Overview

In general, Indian philosophy is practical, concerned with ameliorating suffering and attaining liberation. It is a means by which people try to achieve wisdom and thereby make life better—indeed, make it in part a spiritual quest. So while one can identify characteristically religious practices in all major Indian religions (e.g., rituals, prayer, charity, and meditation), the pursuit of knowledge through philosophical analysis is taken to be itself a form of religious activity. Yet the character of philosophizing—applying careful reasoning to solve abstract puzzles regarding the coherence and justification of fundamental concepts and principles—is fairly similar in Western and Indian traditions.

Central Concepts

While there is wide diversity in the religious and philosophical traditions of India, we can identify several shared concepts. Let us briefly examine some of the most important. These terms are Sanskrit in origin.

Karma. The term literally means "action" but is usually taken to refer to the idea that actions have effects. It can be seen as a metaphysical principle but in Jainism is taken to refer to a type of substance. Karma has ramifications during one's lifetime, but the effects of one's actions are supposed to last beyond one's earthly life. Indeed, the principle of karma holds that one's actions in this life will determine the form of life in which one will be reborn.

Samsara. It literally refers to wandering but is sometimes translated as reincarnation, rebirth, or transmigration. This can be misleading because reincarnation suggests entering a new body, as though

the soul or some other nonphysical element of the person takes on a body. The trouble with this interpretation is that Buddhism denies the existence of the soul as a permanent entity. Other non-Indian traditions have embraced the idea of rebirth, but every major Indian tradition accepts a version of the doctrine. The Hindu, Buddhist, Jain, and Sikh religions all conceive of the soteriological goal of their faiths as release from samsara.

Dukkha. It might seem that rebirth is something to be looked forward to, giving one another chance to live a human life, but there is no guarantee that one will be reborn as a human being. Furthermore, the general sense is that one strives to be free from life, which is fraught with suffering, or *dukkha*. *Dukkha* can be thought of as the unsatisfactoriness of life. So the prevailing view is that birth leads to an ongoing cycle of suffering, death, and rebirth, with occasional respites of pleasure.

Maya and Avidya. *Maya* refers to illusion and *avidya* to ignorance (*vidya* means knowledge, with the prefix *a-* serving to negate). We suffer from *avidya* because we are subject to maya. Illusions lead to ignorance; in the ordinary course of events, for most of us, we take the illusory to be the real and thereby remain ignorant. In some forms of Hinduism, the problem is that we take distinctions between the self and Brahman (the source and sustainer of the universe) to be real, whereas in Buddhism the problematic illusion is that we take the self and objects in the world to be permanent existents. In both traditions, the path to liberation will partly consist in seeing things correctly.

Dharma. Literally, the term means "order" but is usually seen as representing duty. In classical Hinduism, dharma is one of the central goals of life. There are three types of dharma; one can view these as foundations of Hindu ethics. First, there is *varna-dharma*, obligations that stem from one's social class: priestly (*Brahmin*), warrior (*Kshatriya*), merchant (*Vaishya*), or laborer (*Sudra*). Second, there is *Asrama-dharma*, duties stemming from one's stage of life: student, householder, forest-dweller, and *sannyasin* (complete renunciation). A third form of dharma, *Sadharana-dharma*, applies to all people. The *Manusmriti* (Laws of Manu), a seminal Hindu text, holds there to be 10 duties that apply to everyone: steadfastness, forgiveness, application, nonappropriation, cleanliness, repression of sensuous

appetites, wisdom, learning, veracity, and restraint of anger. Later, two additional duties were added: *ahimsa* (not hurting) and *bhutahitava* (general benevolence to all creatures).

In Buddhism, the Pali term *dhamma* is understood to broadly refer to the teaching of the Buddha. So someone practicing Buddhism might well say that she is practicing the *dhamma*—indeed, many prefer this way of speaking to avoid the misapprehension that Buddhists worship Siddhartha Gautama, the historical Buddha.

Principal Religions and Philosophical Schools

Three of the Indian nine philosophical *darsanas* are referred to as "unorthodox," meaning that they do not accept the ancient Hindu scriptures, the Vedas and the Upanishads, as authoritative. The three unorthodox *darsanas* are the Caravaka (Indian materialist), Jain, and Buddhist. Note that Jainism and Buddhism are simultaneously religions and philosophical schools. There are six orthodox *darsanas*: Nyaya and Vaisesika, Samkhya and Yoga, and Vedanta and Mimamsa. Typically, they are paired as above, noting some affinity between the schools. The orthodox *darsanas* are called Hindu, due to their acceptance of the Vedas, but are not individually sects of Hinduism.

Hinduism is a great world religion, with a billion adherents, but there is no unique source of the faith, as with Christianity (Christ), Islam (Muhammad), or Buddhism (Gautama Siddhartha). It did not spring from a single source that was interpreted differently by different groups; rather, the term *Hindu* was originally applied to all indigenous religions from the subcontinent, including Jainism, Buddhism, and Sikhism. Later, it was applied to the religion we now think of as Hinduism.

Hinduism

While somewhat controversial, the best available historical and archaeological evidence suggests that Indian civilization is born of a meeting between two cultures: the urban and sophisticated Indus civilization, including the cities of Harappa and Mohenjo-Daro in the Punjab region of present-day Pakistan, and the agricultural Vedic culture, probably migrants from central Asia.

Vedic culture became dominant throughout most of the Indian subcontinent by the 4th century BCE. Its religious traditions were highly ritualistic, emphasizing maintenance of the natural order

through *yajña*, a fire sacrifice. Brahmin priests, who became very powerful owing to their knowledge and their purity, performed the rituals. In Vedic culture, there were three aims of life: (1) *dharma* (duty), (2) *artha* (success), and (3) *kama* (pleasure); and the *varna* system seems to have been embraced in the "Hymn to the Cosmic Person," which is in the earliest Vedic text, the Rigveda. The *varna* system got distorted into the caste system, with which India still struggles to some extent, although it is illegal. Outside all *varna* are the outcasts, variously called untouchables, Harijans, or Dalits. The *varna* system has religious roots, but the caste system, with more than 2,000 castes, is at best a system for the social and economic organization of the society.

Against this political, social, and religious background, the Upanishads were composed. The Upanishads advance a new vision, with a fourth ideal of human life, *moksa*, to go along with *dharma*, *artha*, and *kama*. The idea is that we attain *moksa* in liberation from *samsara*. This is achieved through deep knowledge of one's self, which is further seen as identical to Brahman, or Ultimate Reality. The basic insight is that *atman* is *Brahman*. One's deepest self, atman, is identical to Brahman. This discovery leads to further ideas: If this identity is true of one's atman, then it is likewise true of all other atman, including that of, say, Justin Bieber. So Justin Bieber too is identical with Brahman, and this implies that each person in her deepest self is identical with Justin Bieber in his deepest self. So the Upanishads suggest that despite the appearance of difference, there is a fundamental, deeper unity. Samsara is the consequence of not seeing the fundamental unity of all that exists. The Upanishads are clearly at odds with the prevailing Brahminism: If salvation is a matter of knowing one's deepest self, then what need is there of the fire rituals and of the priests who perform the rituals? One of the challenges here is that the Upanishads seem to propose an ethic of inaction; this problem is answered in the Bhagavad Gita.

The Bhagavad Gita at once presents an engaging story as well as a new conception of Hinduism. The story is of Arjuna, who is about to enter a battle to take back his rightful kingdom. Yet he is apprehensive because fighting will surely bring death, including to relatives on the other side. This is a moral dilemma, with two unattractive options, but fortunately his charioteer is the god Krishna! The advice of Krishna is very useful in helping one see a distinctively Hindu view of morality. First, within

the context of samsara, the worries over killing are exaggerated. Those we kill are to be reborn, so the consequences of killing are not so bad. Furthermore, in Arjuna's case, indeed the issue is clear: He is a Kshatriya, a warrior whose dharma is to fight this just battle. However, Arjuna must fight solely because it is his dharma, not selfishly for attachment to the fruits of his work. This idea of *work without attachment* transformed Hinduism, probably in response to the Buddhist and Jain movements at that time.

Krishna goes on to suggest three paths to liberation: One is *jnana-yoga*, the path of knowledge familiar from the Upanishads. But this path would not suit everyone; for some, the second path of *karma-yoga*, fulfilling one's *dharma* as well as *yajña*, without attachment, is best. Yet there is a third path—*bhakti-yoga*—the path of devotion to Brahman in the form of the gods. Krishna offers himself as a suitable object of Arjuna's devotion.

Hindu Philosophical Darsanas

Philosophers who take the Vedas as authoritative still have much to disagree about, and a wide range of views have developed regarding metaphysical, epistemological, ethical, and religious matters. Space precludes a complete account, but we can note central elements in the main *darsanas*.

The major form of Hindu pluralism, Vaisesika, holds that reality is constructed out of nine distinctive substances, as well as qualities and relations. Reality is composed of substances: earth, water, fire, air, ether, time, space, atman, and *manas* (or "mind"). Vaisesika is usually combined with the Nyaya *darsana* of logic and epistemology, which articulates a sophisticated view of how we can know reality. These *darsanas* suggest a kind of scientific realism regarding the world, although the details of the metaphysics are problematic.

Dualism is best exemplified by Samkhya, which recognizes two substances: *purusa* and *prakrti*. *Purusa* is nonmaterial substance with which consciousness is constituted. Consciousness is not equivalent to mind; mind, or *jiva*, is a bonding of consciousness to *prakrti*, or matter. This bonding creates individual identities, but these identities will be eliminated in *moksa*. However, Samkhya holds that individual *purusa* are nevertheless distinctive entities. Justin Bieber and I do not share a *purusa*, on this view. The Samkhya view is usually combined with the practical *darsana* of Yoga.

Samkhya dualism may appear subject to some of the problems associated with Cartesian dualism, such as the challenge of interaction, but this is mitigated because there is no problem of *purusa* causing *prakrtri* to act; nor is there a problem of conservation of energy, as there is for the Cartesian. If mind is itself part of the material world, then mind does not really interact with an entirely distinct substance; instead, mind is itself part of the material world. Consciousness is aware of *prakrti,* and this awareness needs explanation, but there is no problem of *purusa* causing the body to act—because it does not!

Third, there are monist schools. There are several Vedanta (end of the Vedas) schools; here, we will consider two of the most well known. Advaita Vedanta holds that there is but one substance, Brahman. This position is associated with the great Indian thinker Adi Shankara (about 788–820 CE). He criticized the Samkhya picture of multiple but indistinguishable *purusa* because, with no distinguishing features, there would be no reason to believe that there are multiple *purusa*. (This reasoning depends on a principle close to Leibniz's identity of indiscernibles: If X and Y have no discernible differences, then X and Y are numerically identical.) Adi Shankara held that only Brahman is ultimately real and that all distinctions are mere appearances. This means that beneath the apparent multiplicity in the world, there is unity. The apparent multiplicity is *maya*, causing *avidya* and further rebirth.

One interesting consequence of Adi Shankara's monism is that he supposes that we can think of "levels of reality." Only Brahman is ultimate reality, but it can be experienced at different levels. A drunkard sees pink elephants, but these have no reality apart from their reality in his mind. The elephants one experiences in dreams have dream reality, but on awakening one knows that their reality is limited. Then, there are the elephants one sees in Jaipur. These have a greater reality, but still they are but manifestations of Brahman. We need not quibble over whether each elephant is real—in a sense, they all are, but not equally so. Furthermore, Adi Shankara seems to be led to a form of linguistic relativity, holding that it is simply our language that creates the distinctions we experience in the world—the language precedes the distinction.

Visistadvaita Vedanta, a school developed by Ramanuja (ca. 1017–1137 CE), offers a theistic version of Vedanta. Like Adi Shankara, Ramanuja believes in one ultimate reality (Brahman), but holds that it can be experienced in two ways: as God (in personal form) or as the world. Both are real, according to Ramanuja. Ramanuja's theistic Vedanta is probably more popular with ordinary Hindu believers, but intellectuals are often more attracted to Adi Shankara's school.

In the Vedanta *darsanas*, there is conceived to be a permanent substance referred to as the *atman.* One's atman is not really distinct from Brahman but is mistakenly taken to be so; liberation (*moksa*) requires becoming completely aware of the identity of atman with Brahman. This concept of atman is one of the central distinctions between Vedanta and Buddhism.

Buddhism

While there are several traditions within Buddhism, we can identify four central beliefs. First among these is the Buddha's *four noble truths*: (1) life is characterized by *dukkha*, (2) craving causes *dukkha*, (3) it is possible to be liberated from *dukkha* (*nirvana*), and (4) *nirvana* is achieved through the eightfold noble path. The eightfold noble path provides a general ethic for achieving nirvana: right wisdom, right intention, right speech, right action, right livelihood, right effort, right mindfulness, and right concentration.

Second, Buddhists generally hold to a doctrine of conditioned arising, which holds that each event is dependent on other events. Conditioned arising implies that there are no uncaused causes, nothing that exists independently of other events—which is why Buddhists are generally atheists. Conditioned arising leads to the third central teaching of emptiness.

We can distinguish two possible views here: One view is that all aggregate objects are empty—devoid of independent existence—but there are atoms of which all aggregate objects are composed. The Abhidharma school held to this view. The second view, epitomized by the Madhyamaka school of Nagarjuna, a philosopher of the 2nd century BCE, holds that all phenomena are empty. This is radical indeed, leading to the idea that there are no real objects but that all objects are conventional constructions—more accurately, objects are series of events that we often mistakenly take to be real in themselves.

The fourth central teaching is of *anatman*. This is sometimes misleadingly referred to as the teaching of "no self." *Anatman* is the idea that there is no permanent self. Rebirth, thus, is a matter of a causal relationship between current and future events, but

there is no substance in which these events occur. A common analogy is between a flame that exists on one candle but is transferred to another (as the first is extinguished); the flame is a series of events, but there is no substance that unifies the flame as the "same flame." The concept of *anatman* is initially quite astounding, but one can find similar ideas in Western thought, including in the work of John Locke and David Hume.

Of all the Indian philosophical positions, Buddhism is most attractive to Western intellectuals, as it seems to make few controversial metaphysical assumptions and may well be consistent with some views in contemporary physics. It also does not assume a creator God. However, Buddhism is a major world religion as well as a philosophical view, and practiced forms of the religion differ from the abstract philosophical theses presented above: In some forms, there are supposed to be multiple gods, and most Buddhists accept some form of the doctrine of rebirth, making it difficult for scientific realists to accept Buddhism.

Implications of Indian Thought for Educational Philosophy and Theory

A case can be made for the importance of studying the philosophical traditions of any culture, especially those very different from one's own. Such study serves to help us become aware of our own basic judgments regarding the world and our experience of it, partly by seeing them as not shared by others or as interpreted and applied differently by others. Studying other philosophical traditions disorients the thinker, causing reflection on one's own basic assumptions regarding reality, knowledge, and value. Indian philosophy may be particularly valuable for educational theorists.

Three areas are particularly relevant here. First, concepts of the self that are developed in Indian traditions help in challenging individualism. Views of the self in Indian thought could be contrasted with Western views that stress ideals such as autonomy and self-esteem. In Buddhism, the self is taken as a kind of useful fiction, and in Advaita Vedanta, it is taken as deeply interconnected with the self of others. In neither tradition could it straightforwardly be taken as the central focus of educational practice. So Indian philosophy and religion invite us to reconsider our assumptions regarding autonomy, independence, and the development of qualities such as self-respect and self-esteem.

Second, educational practice is often taken to involve the acquisition of knowledge. Skepticism has long been a challenge in Western epistemology but is not taken seriously by many educational theorists. Furthermore, if one were to espouse epistemological skepticism, then one would likely reject the claim that education implies acquiring knowledge. In Indian thought, contrarily, knowledge is taken as an ideal, but it is extremely difficult to achieve. This is not quite skepticism—knowledge remains an elusive possibility—but it does make it odd to think of the schoolteacher as concerned with the transmission of knowledge. Knowledge or enlightenment can be seen as an ultimate goal, but the use of knowledge as a criterion by which we can select curricular content will need some finesse. Overall, a version of educational pragmatism might be preferred.

Third, religious education is highly problematic for educators concerned about developing open-mindedness and avoiding indoctrination. However, in the Indian milieu, religion is less a matter of orthodoxy (right beliefs) than of orthopraxy (right practice). Conceiving of religion as forms of practice that lead to *nirvana* or *moksa* avoids the problem of imparting controversial doctrines as uncontroversial. One prays, meditates, worships, or performs rites as means that are tested by their power to move one forward, rather than because they express the Truth. Indeed, the Truth—if there is one—is the end point of the journey, not something taken on faith at the outset. So the religious teacher can see himself as imparting practices to the student rather than as imparting truths. These practices are refined or rejected as one moves forward; they are not intended to be sacrosanct.

This entry has focused on classical Indian thought. Little has been said of the important Jain and Sikh traditions or about more recent developments; and both Buddhism and Hinduism are highly diverse traditions that cannot be encapsulated in a short entry. Furthermore, Indian thought has modern and contemporary developments, often in response to or influenced by developments in Western thought. The Further Readings section suggests some sources to explore more recent developments in Indian philosophy. That said, it is clear that the study of Indian philosophy and religion helps us see educational philosophy in a new light.

Jeffrey Morgan

See also Autonomy; Religious Education and Spirituality

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Individual Psychology: Alfred Adler

Alfred Adler (1870–1937) was an Austrian medical doctor who founded the psychological school of thought known as *individual psychology.* Contrary to popular belief, Adler was not a Freudian or a neo-Freudian but rather one of the originators of the psychoanalytic viewpoint alongside Sigmund Freud. Although he did work closely with Freud for some time, Adler's genius required that he part ways with Freud to dedicate himself to the development of his own unique viewpoint. Unlike Freud, Adler was quite pedagogical in orientation and actively advocated for an individual psychological approach to education. In 1919, Adler opened his first child guidance clinic in Vienna. News of his template for a less authoritarian, more democratic approach to education began to spread, and he was soon invited to speak in the United States, where he would eventually move. Individual psychological education focuses on appealing to the student's creative power to embark on a cooperative journey of intellectual growth and character development.

The Basic Orientation

Individual psychology is anything but an individualist psychology. The term *individual* was chosen to stress the indivisibility of the human being. Adler's viewpoints on human development, experience, behavior, and personality are unabashedly holistic and relational. Individual psychology was a precursor to the emergence of numerous social and interpersonal approaches to psychology and pedagogy, such as attachment theory and existential-humanistic self-development theory.

Adler was ahead of his time in the sense that he was never to succumb to the lures of the so-called nature/nurture bifurcation. This is a testament to his holism. For Adler, the nature/nurture approach to human development amounted to black-and-white thinking in the form of a false dilemma. All human lives are subject to the causative influences of inheritance, social situation, and *creative power.* All three of these life dimensions are intimately intertwined in a dynamic fashion, and no one dimension is merely reducible to the other. For instance, Adler once noted in critical reference to the modern fascination with genetics and neurology that the brain is in fact the *instrument* rather than the *origin* of the mind. Thus, from the perspective of individual psychology, educators should not think about students as the mere by-products of genetics or even environmental conditions. Students are rather interactively involved beings in need of guidance in the art of living with others. The child's education is never left to fate, genetics, or the environment. At the same time, Adler did believe that the child's social situation has the strongest effect at the outset of development. Responsibility falls on the educator to appeal to the creative power or free artistic creation of the pupil. For Adler, to educate means to bring favorable social influences to bear on and to keep a sharp watch to see how the child uses all of his or her experiences of hereditary and educational influence in the event that intervention is necessary.

One should not mistakenly infer that Adler was naively idealistic about the child's potential for free artistic creation. On the contrary, he was acutely aware of the relative helplessness of the child in comparison with the adult, for which he employed the phrase *feelings of inferiority.* The desire to become

more competent and overcome feelings of inferiority has the potential to motivate the child into becoming a spontaneous and enthusiastically involved pupil so long as educators provide an environment that is caring without pampering, genuinely empowering, and inspirational. Adler held that one is only justified in speaking of the "free decisions" of a child on enlisting his or her investment in the health-conducive, cooperative aim that he termed *Gemeinschaftsgefühl*, or "social interest." According to Adler, a good teacher should do what a mother does, which is connect to the child and pique his or her *interest*. Education is a process of engaging students to ensure that they orient themselves ever outward toward the world, things, and other people.

On the whole, then, individual psychology stresses the idea that a child only really becomes a full-fledged *student* within an interpersonal field characterized by community feeling. Where the prospective student is pampered, he or she is prevented from becoming sensitive to the world outside his or her own self-interest. Similarly, an environment that places a high value on competition will only orient the prospective student in the direction of self-enrichment and self-enhancement. For the child to be transformed into a student means that he or she would have been spared the limitations imposed by self-preoccupation. As Adler noted, the best way to teach subjects is in coherence with the rest of life. Moreover, the most efficient and effective way to engage the student is through his or her favored sensory modalities. Adler held that a good teacher makes an effort to find out how the child looks at the world and which sense organ has occupied most of his attention and has developed to the highest degree.

Critique of American Education

Adler found human beings to be social creatures through and through. Accordingly, the key to a thoroughgoing education is the ability to foster a community feeling in students. For this reason, Adler believed that cooperation is the ideal outcome of a quality education rather than the vaguer ideal of love. Education is only finally successful when the child feels valuable not to himself but to the common welfare. At the same time, *real* community requires something more than mere tolerance or a blind conformity to social norms. According to individual psychological education, students should be taught *both* the subject matter and how to think for themselves. In other words, the job of schools is to increase cooperation

and facilitate character education rather than intellectual growth alone. Education is responsible for not one but two outcomes: intellectual development and interpersonal prophylaxis (i.e., the prevention of social ills), for which parents, educators, and mental health professionals must all work together.

Given this twofold goal, Adler believed that American education lagged behind European education with regard to the character aspects of pedagogy. He was of the opinion that modern life had become too complicated for students to be left to their own devices when it comes to character education but the American educational system was guilty of just this sort of abandonment. As a result, Adler believed that American schools set students up for personal aggrandizement rather than authentic citizenry. In protest, Adler (1958) asserted, "We no longer wish to train children only to make money or take a position under the industrial system. We want fellow men. We want equal, independent and responsible collaborators in the common work of culture" (p. 157).

Cautions for Educators

Given the basic principles of individual psychology, Adler cautioned educators along several lines:

Education should not be "specialized," focused on the individual to the extent that it threatens the development of social interest.

Educators should use restraint when using IQ tests. Such tests should be used merely to gauge the student's vulnerable areas and initiate remediation. IQ should never be used as a means for educators to place limits on the student's learning potential and avoid taking responsibility for the student's progress.

Students should not be subject to overcrowded classrooms, due to the potential for neglect and disempowerment.

Educators should make every attempt to avoid having students repeat grades, due to its demoralizing effects.

Educators should similarly attempt to avoid establishing separate classrooms for slow students for the same reason.

Educators should become aware of the many ways in which coming from a lower-socioeconomic status home might interfere with the process of becoming a mature student.

Eugene M. DeRobertis

See also Character Development; Communitarianism; Creativity; Freud, Sigmund; Noddings, Nel; Psychoanalytically Oriented Theories of Child Development

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INDOCTRINATION

The topic of indoctrination is relevant to educational theory and philosophy as it is widely viewed as an unacceptable process that is the antithesis of education. Knowing the features of indoctrination will enable educators to guard against any extreme ideology that could undermine their students' cognitive, affective, and behavioral development, and it also enables them to avoid using indoctrinatory techniques in their own classrooms. This entry briefly discusses the evolution of thinking about indoctrination; the concepts of indoctrination, an indoctrinated person, and indoctrinatory tradition; and the fundamental differences between indoctrination, enculturation, and brainwashing.

Historical Background

Etymologically, the word *indoctrination* is derived from the Latin *docere* ("to teach") and *doctrina* ("whatever is taught"). Although indoctrination simply means instruction, it obtained a negative connotation from the start of the 20th century owing to the prevailing sociopolitical conditions. Leading educators at that time, including progressive educationists, disparaged indoctrination by associating it with authoritarian education. They were particularly wary of the confessional approach commonly used in churches, and as the century wore on, they also were aware of the techniques used to bolster adherence to the Nazi and the Communist political/social systems. (Some social critics even flirted with the hypothesis that the foundational aspects of Western liberal democracy actually were being inculcated using techniques usually associated with indoctrination; and members of minority groups have made the same charge about the ideas that have helped foster their own inequitable treatment.) Since then, indoctrination has been viewed negatively, with philosophers—especially in the 1970s and 1980s—attempting to identify a set of necessary and sufficient conditions for indoctrination (see, e.g., Snook, 1972).

The Basis of Indoctrination

It is still a matter of controversy whether inculcation of a single belief (usually but not necessarily a false one) can be done in such a way that it should count as indoctrination. For example, if a student comes to hold the unshakeable belief that Germany is the oldest democracy in the world, is he or she a victim of indoctrination rather than of bad teaching? Some philosophers say that it depends on the intention of the teacher, others argue it depends on the method of instruction that was used, while yet others would say that indoctrination is only directed at producing a single-minded commitment to large-scale systems of belief rather than single beliefs.

This last case is fairly clear-cut and is of great concern in our contemporary world: It seems that indoctrination certainly (but perhaps not only) takes place when a person unshakably holds "control beliefs" that promote a totalistic ideology. The concepts of control beliefs and totalistic ideology deserve elaboration. *Control beliefs* are the core beliefs all human beings acquire in the natural process of enculturation, socialization, and education. These are psychologically strong beliefs that are cherished and integral to a person's life and personal identity. They are usually embraced by the person without question and are most resistant (but not completely impervious) to change. While all human beings hold to control beliefs as members of a community or society, an indoctrinated person subscribes to a special type of control belief—that which promotes a totalistic ideology.

According to Robert Jay Lifton (1991), a *totalistic ideology* is an extreme ideology that has a detrimental impact on a person's cognitive, affective,

and behavioral development. Cognitively, a totalistic ideology severely limits one's intellectual horizon by constricting the person to a simplistic and binary, "we versus you" worldview. Affectively, such an ideology incites an all-or-nothing emotional alignment through intense affection and loyalty for one's leaders and fellow group members, and a corresponding hostility and hatred toward those outside the group. What follows in behavior is a mobilization of extremist thoughts and destructive emotions to protect one's ideology, advance its cause, and eradicate all obstacles and enemies at all costs. Although a totalistic ideology is likely to be found in the religious and political domains, it can potentially exist in all disciplines.

An Indoctrinated Person

To further understand indoctrination, it is helpful to differentiate an indoctrinated person from one who is not. First, an indoctrinated person clings to an extremely small number of control beliefs, and the methods of instruction that have been used with this person have been adopted with the intention of producing this single-mindedness. For example, all external stimuli that have the potential to be held as challenging the control beliefs accepted by the indoctrinated person may have been deliberately removed by the indoctrinator(s); or an artificial environment has been assured where the indoctrinated person, usually isolated from his or her family and community, is exposed to only the beliefs privileged by the indoctrinator(s). The selected control beliefs are often expressed in abstract and metaphysical terms such as *God*, *truth*, *freedom*, and *progress.*

Second, the control beliefs of an indoctrinated person are so deeply embedded and held in such a psychologically strong manner that they have colonized this person's entire cognitive landscape. By channeling all energy to themselves, these control beliefs determine the person's identity and control his or her entire life, making the person interpret *everything* through the lens of the control beliefs. These beliefs stubbornly withstand external challenge and even distort reality by filtering all incoming stimuli and reinterpreting new information in alignment with and support of one's control beliefs. This is possible because the control beliefs are fortified by a small but carefully implanted and deeply embedded cluster of intertwined beliefs.

Third, an indoctrinated person's control beliefs screen and censure new inputs that challenge, or are inconsistent with, the existing control beliefs by forming new beliefs to reject them, such as "This thought is from the devil" or "Only unsaved/evil/ignorant people think like that." Consequently, the indoctrinated person develops intense affection and loyalty for "Us" and a corresponding hostility and hatred toward "Them." The end result is that the person, feeling privileged to have been "chosen," is obsessed with removing all hindrances—human and otherwise—to fulfill the "higher calling" to protect and propagate his or her ideology.

An Indoctrinatory Tradition

Indoctrination does not occur in isolation; it requires a community of believers who share the same tradition in which the control beliefs have become embedded. There are three essential characteristics of such a tradition.

First, the intention of the indoctrinator(s) to propagate a totalistic ideology must be present. In other words, there must be a deliberate, systematic, and sustained process by the indoctrinator(s) to implant control beliefs that advance a totalistic ideology.

Second, an indoctrinatory tradition is necessarily a closed tradition that prescribes and preserves a monolithic ideology for its members. By dogmatically insisting that it has a monopoly on the truth, it trumpets its own infallibility, resists genuine learning from other traditions, and censures alternative worldviews. In the process, it fosters closed-mindedness and undermines the basic social conditions for its members to grow and mature in their thought, emotions, and actions.

Third (and in the opinion of many philosophers, most important), an indoctrinatory tradition is one that incapacitates its members' development of *strong rationality and strong autonomy.* Such a tradition may grant its members *weak rationality*, in the sense that they are capable of giving reasons to support their beliefs by assuming the truth of their own tradition. But strong rationality is denied, as its members are prohibited from examining or critiquing the tradition itself, considering alternatives, and learning from other traditions. For the same reason, an indoctrinatory tradition may grant its members weak autonomy by giving them limited freedom to order their lives within the boundary of the tradition and even to decide the extent of their commitment to the tradition (e.g., as a community leader or just a follower). But such a tradition deliberately deprives its members the strong autonomy to decide

and live a life of one's own choosing after careful deliberation of the available options. Any attempt to question one's tradition and explore alternatives is likely to be branded by the indoctrinator(s) and fellow members as "immature," "unacceptable," "evil," and "sinful," thereby making the person feel guilty and ashamed for having strayed from the "right" path.

Indoctrination, Enculturation, and Brainwashing

It should be noted that indoctrination is not an "all-or-nothing" phenomenon. Rather, it is manifested in various forms and shapes and to varying degrees, ranging from mild to strong indoctrination. It may even overlap, at times, with enculturation and brainwashing. It is therefore helpful to distinguish indoctrination from enculturation and brainwashing.

The process of enculturation involves children or new members of a community learning about a tradition's control beliefs. These control beliefs define and frame the person's worldview and identity as a member of a community. But these beliefs are not held in such an extreme way that they become impervious to doubt. A healthily encultured person is allowed and encouraged to inquire into and even revise one's control beliefs if necessary, as well as to interact with and learn from other traditions. The willingness and ability of a normally encultured person to question one's own beliefs, consider alternatives, and order one's life autonomously are largely absent in an indoctrinated person. The latter is one who blindly clings to a totalistic ideology; that is, the person's cognitive, affective, and behavioral growth has been paralyzed.

As for brainwashing, it is simply a term used to denote an extremely intense form of indoctrination, akin to psychological conditioning. A brainwashed person is one in whom control beliefs have been so deeply embedded and are held so strongly that the person's former beliefs have been totally replaced by the control beliefs implanted by the indoctrinator(s). By greatly imperiling a person's intellectual, moral, emotional, and social development, brainwashing dehumanizes the person—the very reason that makes indoctrination so objectionable.

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See also Autonomy; Education, Concept of; Progressive Education and Its Critics; Rationality and Its Cultivation; Religious Education and Spirituality

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INSIGHT LEARNING

Gestalt psychologists proposed insight learning as an explanation for the type of one-trial learning that they observed after people or animals engaged in active problem solving. Therefore, insight learning can be contrasted with association-based empiricist philosophies and behaviorist theories that propose that all learning occurs gradually through the repetitive co-occurrence of external stimuli. A useful way to illustrate the difference between these two perspectives is to contrast two different animal learning experiments from the early 20th century, when the concept of insight learning was developed.

In his 1911 book, *Animal Intelligence*, Edward Thorndike published experiments on learning that supported the associative learning perspective. He placed cats in a closed box; this had a lever that would release the cat from confinement when pressed. He observed that the cats would try to escape by producing random behaviors around the box that would eventually, accidentally, press the release lever. Gradually, over multiple repeated trials in the box, the cats would go from random behaviors to pressing the lever purposefully when put in the box. Thorndike explained this pattern by proposing that learning occurred through the association being formed between external stimuli and the lever-pressing behavior by repeated co-occurrence.

In Wolfgang Köhler's 1925 book, *The Mentality of Apes*, he described patterns of problem solving and learning behaviors that seemed at odds with purely associative theories of learning. In his

experiments, Köhler would place food in areas of the apes' enclosure that were out of their reach. He then observed the patterns of behaviors that the apes would exhibit while trying to get the food. Köhler observed that the apes would begin problem solving by attempting previously used strategies, such as climbing up the side of their enclosure or trying to poke the food with a bamboo stick. When these strategies failed, Köhler observed that the apes would eventually stop any further overt attempts to get the food. On several occasions, Köhler observed the apes suddenly performing a new set of behaviors in a quick and purposeful manner, such as putting two pieces of bamboo together or stacking boxes on top of each other, to reach the food. When Köhler put the food in the same location on future trials, he observed that the apes would immediately use the newly discovered strategy to get the food.

To Köhler and the other Gestalt psychologists, this pattern of sudden learning could not be explained by gradual associative learning processes. In his 1935 book, *Principles of Gestalt Psychology*, Kurt Koffka articulated the difference between associative and insight learning as the difference between learning occurring in the *geographical environment* versus the *behavioral environment.* The geographical environment is an objective description of the physical objects, their relative locations, and the properties of the objects in an organism's immediate location. The behavioral environment is a subjective description of the objects the organism has perceived, its knowledge about the properties and functions of the objects, and the organism's goals or motivations. To Koffka, associative learning theories described how organisms learned new patterns and object properties from their geographical environment, while insight learning processes explained how organisms reconstruct or reorganize their prior experience to form new relationships in their behavioral environment in order to develop new adaptive behaviors.

In his 1945 book, *Productive Thinking*, Max Wertheimer explained the difference between insight and associative learning in terms of the difference between *productive* versus *reproductive* thinking. He proposed that associative theories of learning were only applicable to learning in situations where an organism is simply trying to reproduce a previously attained outcome (e.g., the cat trying to release the puzzle box door again after accidentally hitting the lever on the first trial). However, insight learning processes apply to situations where an organism is

trying to produce or create a new desired outcome that it has never obtained before.

Although the terminology and focus among the early Gestalt psychologists differed, they all were describing similar key aspects that differentiate insight learning from associative learning:

1. Insight learning occurs from active and goal-directed reasoning behaviors.

2. Insight learning is the result of internal psychological reasoning processes that reorganize or restructure prior knowledge to find new adaptive and useful relationships of concepts and ideas.

3. Insight learning is only likely to occur after initial attempts to solve the problem via prior experience or behavioral trial and error have failed.

4. The new conceptual understanding and knowledge obtained during insight learning are easily retained and generalized to new situations.

The Gestalt psychologists proposed that the psychological processes that lead to reasonable, rational, and useful reorganization of knowledge play a central role in human creativity and scientific discovery. Furthermore, they believed that the educational practices based on association theories, such as repetitive drills and recitation, are not only unpleasant for students but are ineffective for fostering meaningful conceptual understanding. The insight learning perspective would propose that educational curricula involve activities that require active engagement in goal-oriented problem solving, inquiry, and discovery.

Modern cognitive psychologists have investigated insight as a problem-solving process, instead of a learning process. Information processing research has largely focused on the phenomenology of the problem-solving sequence by investigating impasse, restructuring, and the "a ha!" feeling often associated with solving new problems. This research, often referred to as an insight problem-solving research, attempts to verify whether the type of discontinuous solving process proposed by the Gestalt psychologists actually exists and investigates the nature of the cognitive processes involved in restructuring. However, very little modern research has focused directly on the learning aspects of the Gestalt insight learning theory. However, some of the underlying insight learning mechanisms that were originally proposed by the Gestalt psychologists have been investigated by researchers studying

anagogical transfer, comprehension, and inquiry/discovery–based learning.

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See also Associationism; Behaviorism; Learning, Theories of

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INTELLIGENCE: HISTORY AND CONTROVERSIES

Intelligence is a term commonly applied to the capacity of humans (and sometimes that of other higher mammals) to accomplish a wide range of mental tasks, including comprehension, analysis, abstraction, and prediction among others. It is named as a key factor in learning and success in the academic, occupational, personal, and social domains. Parts of Plato's great work *The Republic* can be read as foreshadowing the modern interest in intelligence as an account for success. He conceived the citizens of his utopia as having different capacities, and only a few individuals—he included both men and women in this group—were able (among other things) to engage in the deep, abstract thought needed to excel in the study of mathematics and metaphysics, which would equip them to become the Republic's leaders.

Yet a person's "amount" of intelligence is not something that can be located and measured directly. Rather, it must be inferred from how well a person performs in a given setting thought to require intelligent behavior. As settings differ, so do ways of conceptualizing intelligence. This entry summarizes the approaches that have been used to conceptualize intelligence, related philosophical perspectives, and implications for education. The entry concludes by summarizing the controversies surrounding intelligence testing.

Intelligence as Test Performance

Psychologists commonly measure intelligence using tests designed to assess reaction time, attention and memory, analogical reasoning, or basic quantitative, spatial, or verbal abilities. Intelligence tests differ from achievement tests typically used by educators in that the former are believed to measure what someone *can do* as a result of innate capability and the latter measure what someone *has done* as a result of education and experience. Examples of widely adopted intelligence tests include the Wechsler series (e.g., the Wechsler Intelligence Scale for Children) and the Stanford-Binet Intelligence Scales, and their metric is known as an intelligence quotient, or IQ, score. In educational settings, intelligence tests are used to diagnose learning or other cognitive disabilities. Achievement tests, in contrast, are used to assess individual academic progress, to track instructional effectiveness, and to predict future academic success. The earliest intelligence tests were performance-based and administered one-on-one, requiring examinees, for example, to demonstrate their sensory acuity or attentional capacity to the examiner. Individual testing still is used for diagnostic purposes; however, group testing via paper-and-pencil or computer is more commonly used to conduct intelligence research.

Conceptualizing intelligence as test performance arises from the observation that scores on mental tests tend to positively correlate with one another, such that people who score highly on one test also score highly on other tests. Intelligence is thought to be the core mental capacity that accounts for this consistency in performance, although theories differ on how many dimensions, or factors, this capacity comprises. Single-factor theories posit that one capability (sometimes referred to as *g*, or general intelligence) underlies performance on all mental tests. This approach to conceptualizing intelligence may trace its philosophical roots to Plato and Aristotle, who saw the intellect as an eternal, immortal capacity to grasp ideals, which drives knowledge and understanding. On the other hand, multiple-factor theories posit that humans have a variety of basic mental capabilities, but these theories differ on how many abilities they propose and whether the abilities are independent of one another or can be hierarchically organized under general intelligence. The

philosopher Immanuel Kant's 12 categories of understanding, which he believed gave order to sensory experiences, represent a faceted conceptualization of intelligence that is consistent with multiple-factor theories.

A limitation of factor theories of intelligence is that they fail to define what exactly intelligence is. For example, the capability underlying test performance has been conceptualized as "mental energy," but this definition does not explain why one person scores well on a test and another person scores poorly. Millennia ago, in attempting to explain poor judgment, Plato likened the mind to a block of wax whose properties affected the quality of the memory "stamp" impressed on it and consequently affected recognition and performance. In *The Republic*, Plato accounted for differences in abstract thinking by proposing that utopian citizens had one of three "metals" in their natures—bronze, silver, or gold— and that there was a tendency for this metal to be passed on to their children.

Cognitive psychologists have attempted to address this issue by investigating the tasks that constitute effective performance on intelligence test problems. For example, they first broke down problems into component activities, then provided training on each component, and finally evaluated which training had an impact on overall test scores. Others attempted to identify which basic cognitive processes, such as the ability to quickly inspect the difference between two stimuli, were associated with overall test performance. Biological psychologists have explored the correspondence between test performance and measures of the speed and efficiency of cortical processes, such as electrochemical activity and blood flow. After decades of research, disagreement remains as to what basic mental capacities underlie intelligence test performance and the degree to which intelligence test scores represent other factors such as intellectual and physical environment and self-regulatory skill.

Despite a variety of approaches to improve or "teach" intelligence, there is little evidence indicating that intelligence test scores can be changed substantially or in any lasting way. Indeed, intelligence tests are thought to assess an innate capability and so are designed to produce the same scores, test after test. Dispute over what this capability is and reliance on such tests to measure it constrain the options for those interested in enhancing intellectual function. For this reason, conceptualizing intelligence in terms of test performance has limited utility in education beyond diagnosing cognitive disability.

Intelligence as Higher-Order Thinking

Others have conceptualized intelligence not as a fixed mental capacity but as a form of developing expertise. According to this perspective, intelligence tests capture one aspect of cognitive expertise but not the full range of mental capacity. Rather, intelligence constitutes one's ability to accomplish activities such as explanation, reasoning, problem solving, critical or scientific thinking, and reflection. Intelligence involves basic mental capacity, but a person becomes more intelligent as knowledge is acquired and organized into complex networks that enable higher-order thinking.

The work of the developmental psychologist Jean Piaget exemplifies theorizing about how knowledge is acquired and organized to enable higher-order thought. He posited that intellectual development occurs in a progression of four stages from birth to early adulthood: (1) the sensorimotor stage (birth to approximately 2 years of age), (2) the preoperational stage (approximately 2–7 years of age), (3) the concrete operations stage (approximately 7–11 years of age), and (4) the formal operations stage (approximately 11 years of age). Piaget thought that advancement through each stage involved acquiring new knowledge from the world, integrating that knowledge into existing ("logical") structures, and forming new structures when preexisting ones were deficient. For example, a pediatrician who encounters difficulty convincing otherwise compliant parents to get an HPV (human papillomavirus) vaccine for their children may have to expand her understanding of the factors influencing families' medical decision making to include religious beliefs. Modern, neo-Piagetian theorists ascribe a more active role to the person and the environment in intellectual growth, which they assert is promoted via experimentation and inquiry and shaped via culture and interpersonal interaction. Stage theories have drawn attention to the important matter of how intellect develops; however, a limitation of these theories is the fact that intelligent behavior does not grow in a strict, stagelike fashion.

When we see intelligence as knowledge enabled, we recognize that philosophers who study epistemology—the nature and scope of knowledge—also wrestle with the issues of what constitutes intelligent behavior and how it develops. Perhaps the branch

of epistemology that currently is most widely recognized by educators is constructivism, the philosophy that knowledge is actively constructed, rather than something that exists in the world waiting to be discovered. Constructivist ideas underlie the student-centered instructional approaches used in many classrooms today, such as inquiry-based learning and experiential learning.

The acquisition of knowledge and higher-order thought also has been studied by cognitive scientists, who test their theories of mind via computational models. They create computer programs to represent their theory of cognitive architecture, and if the programs accurately reproduce human performance (e.g., make the same kind of errors in mathematical computation), the theory is judged to be adequate. John Anderson's cognitive architecture, initially called Adaptive Character of Thought (ACT), and associated phase theory of skill acquisition, is a salient example of this approach. Anderson's theory posited that skills become automatic through a process of first learning the rules of the task, then developing procedures for executing the rules, and finally practicing the procedures until execution is rapid and consistent. Some aspects of higher-order thinking are not automatic, however, and the ACT theory has been augmented by Anderson and several other colleagues to investigate natural language processing and complex tasks such as piloting an aircraft. The ACT theory and its extensions have been used to build computer-based intelligent tutors for high school mathematics. Other cognitive architectures, such as Soar and EPIC, also are used to investigate the nature of intelligent behavior through computational modeling.

The computational approach to conceptualizing intelligence may trace its roots to the logician Alan Turing, who, in 1950, posed the question "Can machines think?" and argued (controversially) that successful imitation of human behavior constituted machine intelligence. Philosophers of artificial intelligence have debated the possibility and nature of machine thought for decades, reflecting contrasting views about the embodiment of the human mind and what constitutes intelligent behavior. Although humans are not machines, inquiry into what constitutes thinking illuminates the nature of intelligence in ways that may support teaching and learning.

Conceptualizing intelligence as higher-order thinking implies that intelligent behavior can be developed through instruction that promotes knowledge acquisition and organization. The widespread application of constructivist philosophy to curriculum design at all levels of education indicates general acceptance of the goal to improve higher-order thought as well as the belief that this is possible. Successful computer-based tutors based on computational models of cognitive architecture support this idea. There are many challenges to reaching this goal, including the difficulty of assessing higher-order thinking in a reliable, valid, and feasible manner, the prioritization of lower-order knowledge assessment on high-stakes examinations, and the diversity in both student and teacher readiness to improve thinking skill. Although there have been several empirical studies demonstrating the success of particular instructional and study strategies in improving higher-order thinking, it has proven much more difficult to successfully implement and evaluate these strategies broadly.

Intelligence as Social Function

The development and expression of intelligence need not be seen as a solitary act that occurs solely inside an individual's head. Conceptualizations of intelligence as a social function posit that intelligent behavior constitutes successful participation in the activity of a group, culture, or society and that the development of intelligence occurs through social interaction.

The ideas of Lev Vygotsky generally are taken as the origin of social conceptualizations of intelligence (although there is also a case to be made for John Dewey and the American pragmatists). Vygotsky proposed that people influence each other's intellectual development through the use of *psychological tools* such as terminology, visual aids, physical demonstrations, and so forth. For example, a professor of education may help preservice teachers understand the nature of children's reading difficulties by showing video-recorded snippets of students committing different types of reading errors, using specific terminology to refer to each error type, and providing a framework that links error types to their cause and optimal remediation strategies. Vygotsky coined the term *zone of proximal development* to refer to the space in which psychological tools are employed to improve an individual's capability to perform. The zone of proximal development is the difference between what a person can do unassisted and what can be done with the help of psychological tools. Importantly, another person need not be physically present to achieve socially enabled intellectual

development; psychological tools such as textbooks and interactive media can embody the contributions of others to the learning experience. The Internet has vastly expanded the reach of social learning by making psychological tools available worldwide and at the convenience of the individual learner. Communities of practice, a social learning vehicle posited by management scholars influenced by Vygotsky's ideas, exert a strong influence on adult professional development, yet community members need not ever physically meet for learning impact to occur. Constructivist philosophies that embrace the tenets of social learning theory serve as the conceptual basis for collaborative learning approaches such as problem-based learning or team-based learning. In collaborative learning, verbal exchange among learners promotes articulation of what one knows and the discovery of knowledge gaps, which stimulate self-directed learning, engagement in the learning material, and retention of the information studied.

Viewing intelligence in terms of social function opens doors to exploring the social factors that influence intellectual development. Scholars espousing this view have demonstrated a link between notions of intelligence predominant in the home environment and children's academic performance. Attitudes about intelligence within families may drive intellectual stimulation through increased verbal exchange between parents and children; access to books, computers, and other learning tools; learning experiences outside the home; and so forth. In educational settings, the demonstrated influence of performance- versus learning-oriented mind-sets on learners' goal striving, persistence, and help seeking may shed light on the mechanisms whereby ideas about the nature of intelligence affect intelligent behavior.

An important implication of the sociological approach to conceptualizing intelligence is that learning need not be constrained to the classroom. Indeed, socially mediated learning can occur in the home, on the playing field, or even online. Another implication is that learning processes, particularly the quality and freedom of interpersonal exchange in the learning environment, should be as much of a focus for educators as learning content. Ensuring quality interpersonal exchange is a challenging task, particularly in the face of diversity among learners in academic readiness, notions of learning, and approaches to social interaction. Without quality interpersonal exchange, however, it is unlikely that social learning approaches will achieve better results than individual instruction.

Controversies

In the United States and Great Britain, early attempts to measure intelligence via mental tests occurred at a time when there was societal interest in ranking particular racial, ethnic, or socioeconomic groups according to their intellectual ability. Intelligence testing provided a formal way to measure a group characteristic that could be conceptually linked to—and thereby used to constrain—educational and economic opportunity. From the onset of evaluating group differences in intelligence test scores, such differences have been found, and their explanation has generated sustained controversy that persists to the present day. The most heated controversy has surrounded the presence and nature of race differences, particularly those between Blacks and Whites. In the interest of scope, this section focuses on the Black/White controversy, but the issues discussed relate to investigations of group differences in intelligence generally.

The controversy over Black/White differences is not about whether such differences exist; persistent, albeit shrinking, differences in intelligence test scores, favoring Whites, have been reported since the beginning of group studies. The central issue is why these differences exist and what can be done to alleviate them. Some people, most notably Arthur R. Jensen, have advanced biological explanations for this difference, which they trace back to genetic differences between the races. According to this view, for example, Whites perform better on intelligence tests because their genetic makeup predisposes them to. The book *Hereditary Genius* (1869), written by Francis Galton, cousin of Charles Darwin and founder of the eugenics movement, set the stage for such genetic explanations by proposing that intelligence is heritable. Galton noted that the comparison of identical twins reared apart with such twins reared in the same household would illuminate the genetic basis of intelligence. Sir Cyril Burt was among several researchers who, down to this day, employ twin studies to investigate the heritability of intelligence. (Burt, however, is controversial for having allegedly fabricated much of his data after having lost the original material during a blitz on London during World War II.)

The implication of biological and genetic explanations is that the social and economic inequities

experienced by Blacks are explainable in terms of the basic deficiencies that doom attempts to achieve social justice to be futile. As exemplified by Jensen's highly controversial 1969 article "How Much Can We Boost IQ and Achievement?" the absence of successful efforts to produce generalized, lasting improvements in intelligence test scores is sometimes taken to support such views. There is a wealth of empirical evidence to refute the idea of a biological basis for Black/White differences in intelligence, but summaries of this evidence exist elsewhere. Instead, the limited space available will be used to explain why a biological account of Black/White differences is conceptually flawed. This line of thinking generalizes to the investigation of other group differences, including between other races, genders, and social classes.

The argument that Black/White differences in intelligence have a biological basis makes two inadequate assumptions. First, the argument assumes that race categories are genetically distinct and that race is a biologically meaningful concept. There is evidence indicating that biology differentially affects the prevalence of health conditions in particular race groups (e.g., there is a higher incidence of sickle cell anemia among Blacks); however, there is no evidence to support the idea that races have distinct genetic or biological "signatures." For example, there is no way to use a person's genetic code or biological makeup to objectively determine if he or she is "half-Black." The lack of a biological basis for race raises the question of how race is defined in studies of group differences and what social criteria are implicitly employed when such definitions are made. A second assumption is that genes and biology, independent of race, can be clearly linked to scores on intelligence tests. Although single-gene defects can cause mental retardation, there is no single "intelligence gene" that is expressed in biological structures or processes that can be definitively linked to intelligence test performance. There simply is too little known about the mechanisms whereby genes and biology produce intelligence test scores to posit any genetic explanation for intelligence, regardless of whether race can be biologically defined.

When considering controversies over intelligence, it is important to remember that test performance is just one way of conceptualizing intellectual behavior and that this particular view does not lend itself well to improving knowledge acquisition or social function. Investigators and philosophers alike have struggled for millennia to understand the nature of intelligence, and the result of their effort is a broad set of ideas about what constitutes intelligent behavior. These ideas highlight the importance of continuous engagement with the world, including other people, to improving the intellectual function of individuals and groups.

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See also Abilities, Measurement of; Achievement Gap; Bell Curve; Cognitive Revolution and Information Processing Perspectives; Dewey, John; Ethnicity and Race; Gender and Education; High-Stakes Testing; Mead, George Herbert; Multiple Intelligences: Howard Gardner; Plato

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Intelligent Tutoring Systems

In 1966, Patrick Suppes boldly conjectured, "One can predict that in a few more years, millions of school children will have access to what Philip of Macedon enjoyed as a royal prerogative: the personal

services of a tutor as well-informed and responsive as Aristotle" (p. 207). Soon afterward, Suppes and Mona Morningstar published studies showing benefits for learners studying elementary school arithmetic and college-level Russian-language courses using an adaptive drill-and-practice software system. It selected content based on an individual's history of progress and principles of operant psychology, particularly schedules of reinforcement. Such adaptive software set a cornerstone for intelligent tutoring systems (ITSs), that is, software designed to instruct a learner to develop knowledge and skills at least as well and in no longer time than if the learner was tutored by a highly effective human tutor. While Suppes's forecast was optimistic, diverse ITSs are now researched and used in high schools and colleges around the world. This entry discusses how the design of ITSs has evolved; how their design has been informed by constructivism, natural language processing, and research on cognitive processing; the features of a comprehensive ITS; and research on the effectiveness of ITSs.

Early ITSs selected content based on a rather rigid model of knowledge that formed a basis for skills in a domain of problem solving, for example, arithmetic or algebra. But learners often erred. To compensate, the system's model of content was extended to include "bugs," mistakes that interfere with validly applying a procedure to generate an answer. When a learner appeared to apply a buggy procedure, a correct one could be recommended. In this context, a conceptualization of an ITS as coach emerged. Coaching implies a dialogue in which the ITS and the learner exchange descriptions about procedures. This led to developing so-called mixed-initiative ITSs, in which the ITS or the learner could "lead" and feedback based on prior contributions to the conversation was central. The structure of dialogues was grounded on a merger of theories of conversation with models describing structures of the content tutored. A prominent paradigm guiding designs for ITSs is constructivism. It characterizes learners as intrinsically active searchers for, and assemblers of, knowledge and skills. In this view, an ITS affords a learner opportunity to explore content and encourages the learner to construct interpretations as a result of successive explorations. To facilitate exploration, an ITS adopts one or both of two stances: (1) inviting the learner to develop situations and test hypotheses, as in a system that simulates principles of physics, or (2) engaging in dialogue with the learner to create opportunity for the learner

to reflect on evolving structures of knowledge or skills. As before, ITSs designed in the tradition of constructivist theories generated some successes as well as some disappointments. Supporting these systems was work on natural language processing that allowed the ITS to "converse" with the learner, and human–computer interaction that guided designs for graphics interfaces and methods by which learners manipulated elements, for example, changed the values of variables and kept track of conditions and results over a series of experiments in a simulation.

Along with constructivism and natural language processing, a third framework guiding research involving ITSs draws on an eclectic assemblage of research on cognitive processing and the factors that impinge on it. A prominent example of this approach, cognitive tutors, reflects three main principles. First, cognition can be described as a production system, that is, a typically hierarchically articulated set of rules where each rule includes a set of conditions (ifs) that when satisfied result in a particular action (then). A successful production system faithfully represents changes in the states of a learner across time and binds states to effective choices about content to present an instructional move. Second, skills of the kind used in solving problems progress from a declarative state, wherein the elements of a skill become known and organized into sets, to an integrated procedural state, wherein knowledge transforms to a form that solves problems in a fluent, holistic process rather than a separate step-by-step process, as in climbing a staircase. Third, because learners learning to solve problems can attend only to a limited amount of information, tutoring should select problems and provide feedback to support forging an optimal composition of rules that successively builds toward proceduralizing knowledge as a skill.

Beverly Park Woolf describes the design of a comprehensive ITS as having seven features:

1. Generativity, or the capability to select or construct content tailored to advancing a learner's progress

2. Student modeling, a learner's attributes—for example, knowledge, motivation, or affective state—in a form that affords reasoning about a learner's state and, in that context, choosing content or instructional moves that help the learner progress

3. Expert modeling, or knowledge and skills in a form that corresponds to mastery of the domain

and supports making inferences about the content a learner should engage

4. Instructional modeling, or the ability of an ITS to characterize possible instructional moves and infer the relative benefit of each for advancing the learner's knowledge

5. Mixed initiative, which describes an ITS that can initiate instructional exchanges as well as reply to a learner's initiations

6. Interactive learning, which refers to a design for engagement such that a learner is an active participant or collaborator in instruction

7. Self-improving, which identifies that an ITS records and analyzes the events it generates as well as data characterizing the learner's progress, which are analyzed to predict how to improve the effectiveness or efficiency of instruction

ITSs in the laboratory and in schools exemplify these features in varying degrees and forms.

Are ITSs effective? Wenting Ma, Olusola Adesope, and John Nesbit reported a thorough meta-analysis. Across a range of outcomes, grade levels, and designs for modeling learner competence in the domain being tutored and subjects tutored, ITSs generally advanced learning to a greater extent than teacher-led instruction, nonadaptive software systems, and textbook-based or workbook-based instruction.

Philip H. Winne

See also Behaviorism; Dialogue; Knowledge, Analysis of; Learning, Theories of; Radical Constructivism: Ernst von Glasersfeld; Teaching Machines: From Thorndike, Pressey, and Skinner to CAI

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INTERNATIONAL STUDENT ASSESSMENT (PISA)

The objective of this entry is to describe the main characteristics of the Programme for International Student Assessment (PISA) conducted by the Organisation for Economic Co-operation and Development (OECD)—a series of cross-national studies conducted since 2000 to assess achievement of 15-year-olds. PISA was initially developed as part of the strategic plan implemented by OECD to provide their International Indicators of Education Systems (INES) project with regular indicators of students' achievement near the end of compulsory schooling. This entry discusses the reasons for the establishment of PISA, the target population and subject areas tested, the assumptions behind the tests, the constraints on interpretation of the results, and issues with the way results are reported.

In industrialized countries, a dramatic increase in enrollments occurred during the latter half of the 20th century, due to the combined effects of the postwar baby boom and a swift rise in educational demand from families and the labor market. This increase in enrollment resulted in an accelerated trend toward universal secondary schooling and a large increase in enrollments in tertiary education. The shift from "elite" to "mass" education, particularly in secondary schools, not only required huge public investments but also enormous adaptation efforts in school systems. The length of compulsory schooling was extended, and significant reforms of organizational structures, of curricula, and of teaching methods were common during the 1960s and 1970s—a transition period in which many educational systems were requested to rapidly switch from strict selectivity, highly tracked programs, and discrimination against disadvantaged minorities toward greater retention and more comprehensive instruction for all.

While contributing to advances in scientific knowledge remains a fundamental concern, most recent international studies carefully identify the policy issues that can be addressed through the

study results and respond by devising more complex strategies to disseminate the information collected among stakeholders at all levels of the educational systems.

In this respect, PISA can be considered to (1) inform national authorities about the extent to which other school systems "do better" than their own system in terms of student outcomes, instructional delivery, teachers' qualification or professional development, effectiveness of resource use, and so on; (2) indicate whether the school organization in other countries results in fewer disparities in the quality of instruction delivered and in a lower impact on students' outcomes of social background, gender, or ethnicity; and (3) show whether the evolution over time of any of these indicators was positive (or negative) in their country compared with other countries.

Like most international studies, PISA routinely allows for both international analysis of the pooled data set and replicated analysis of each country's data. Then, generalizations about education can be made, as well as more specific national analyses. The PISA studies also encourage the use of national options; that is, a country can add extra variables for national analyses only to an international study in which it participates.

A specific feature of PISA is that the program is primarily intended to provide indicators to the governments of a specific group of countries—the industrialized nations that compose the membership of the OECD. All but 2 of the 30 OECD countries that were then members of OECD participated in the first assessment in 2000, and all of them participated in 2003. While a number of non-OECD countries also joined in the assessments (a total of 53 countries participated in the 2006 survey and 65 in 2009), their delegates serve in the PISA Governing Board as observers and do not have a decision-making status. This latter role is restricted to the OECD member countries.

The Target Population and Subjects Tested

PISA uses a "pure," age-based definition of its target population, which consists of 15-year-old students, irrespective of the grade attended. This is the older age group where 100% or near 100% of the students are still attending school in almost all of the OECD countries.

PISA is conceived of as a periodic program, where each nine-year cycle includes three assessments of student literacy in reading, mathematics, and science, conducted in the third, sixth, and ninth years of the cycle. Each of the three data collections includes all three domains, but with a special focus on one of them and shorter test instruments for the other two. In the first PISA assessment, conducted in 2000, reading literacy was assessed as the major domain, while mathematical literacy and scientific literacy were the minor domains. In 2003, mathematical literacy was the major domain, and reading and science were included as minor domains. In 2009, the focus shifted to science literacy, with reading and mathematics as minor domains. In 2012, a new nine-year cycle started, with reading again the major domain and with interactive problem solving as a minor study. This design allows trends in achievement in these areas to be monitored on a regular basis.

Each assessment period also includes an additional "experimental" domain, which is not part of the rotation sequence. In PISA 2000, the experimental domain was self-regulated learning; in PISA 2003, it was problem solving; in PISA 2006, it was computer-assessed science, and in 2015, PISA will follow on from the successful work of the Assessment and Teaching of 21st-Century Skills project (Griffin, McGaw, & Care, 2012) to include collaborative problem solving, in which students will interact with one another to solve problem scenarios.

PISA studies are school based; but unlike other cross-national studies, such as those conducted by the International Association for the Assessment of Educational Achievement (IEA), PISA studies are mainly literacy oriented rather than based on the school curriculum. The intention is "to provide policy-relevant information on the cumulative yield of education systems towards the end of compulsory schooling, measured in terms of the performance of students in applying knowledge and skills they have acquired in key subject areas" (cited in Postlethwaite, 2004, p. 3). The PISA test instruments are focused on students' ability to apply their competencies in functional situations and authentic contexts.

Aims and Assumptions

In general, PISA aims to provide policymakers and educational practitioners with information about their education system in relation to other systems and to assist them in understanding the reasons for observed differences in the achievement of students from different educational systems. In addition,

there has been an unmistakable common trend toward benchmarking and defining standards of achievement as well as explaining the determinants of achievement.

A common assumption of PISA and similar studies is that differences in student performance between countries can be linked to the characteristics of particular education systems and that by recommending changes and improvements in the characteristics of educational systems there will be improvements in student achievement. For example, the OECD nations often base their arguments in favor of a better monitoring of education on the relationship between educational achievement and productivity growth at a national level (OECD, 1989). Whether the nature of this relationship is causal or not, however, is a much debated issue. McKenzie and Wurzburg (1997) argued that the evidence relies on comparisons between countries at different stages of development and may well be spurious.

Constraints

There are a number of concerns about (a) the actual comparability of the data on which international analyses are based and (b) the ways in which they are interpreted and reported.

Comparability issues include concerns about the following:

Validity of the assessment materials used: Are they equally appropriate for all participating countries, and are the dimensions assessed sufficiently similar across the various cultures and educational curricula to allow for meaningful comparisons? This is particularly the case for non-OECD countries, which have no decision-making power in the definition or scope of instruments.

Linguistic equivalence of test items: Since the assessment materials are translated into a variety of languages, the results may be affected by possible translation issues.

Equivalence of target populations: Even in PISA, where the target population is age based, the focus is still on 15-year-olds in school, hence receptivity issues arise. Are the samples of students reasonably consistent and representative in each of the participating countries? Are the results affected by differences in the defined populations or in the number of exclusions, or by variations in the response rate?

Comparisons over time: Are they warranted, when neither the cohort of students assessed nor the instruments used are exactly the same?

Reporting Issues

A much-criticized aspect of international comparative studies is that they are deemed to encourage "league table" interpretations of the results, where mean achievement scores by country are ranked in descending order. This can encourage superficial (and often misleading) interpretations of the results, based on ranks rather than on the pedagogical importance of the observed differences. In addition, this type of report is often used, particularly in the media, to "support" unwarranted conjectures about possible causal links between the "high" or "poor" ranks of countries or groups of countries, with all sorts of contextual variables showing even minor cross-country differences (e.g., differences in teachers' age, in teacher–student ratios, in the size of schools, etc.). Finally, by focusing on mean scores and ranks, league tables can divert attention from other very important parameters, such as the dispersion of the achievement scores.

Use of Described Scales

While it is a continuing trend to report distributions and standard errors, there is also an emerging trend to report distributions over levels of competence. This has far greater utility in terms of policy development.

Competency continua are established using item response modeling and by obtaining from domain experts a detailed description of the skills required to answer the test items corresponding to various score points on the continuum. These item maps enable a generalizable interpretation of the underlying variable measured by the tests. By setting cut points on the scale, different levels of proficiency can be established, and results can be reported in a much more meaningful way than through single-country mean scores: Policymakers are provided both with information on the percentages of students in their population who are proficient at each competency level and with information on the knowledge and skills that students at each level have actually mastered.

This form of reporting enables more interesting reflections on the relations between achievement and teaching, resource allocation, and policy development. Benchmarks can be set, but more important, intervention strategies can be developed for students

at every level, not just for students below the expected levels of achievement. This has far-reaching implications for curriculum and policy developers.

Conclusion

The way in which international study results are reported can have an impact on public opinion and policy decisions. Of course, despite all efforts deployed in subtle presentations of the data, little can be done to prevent the media from focusing on the most "visible" results of international comparisons—the "horse-race" aspects. However, well-conducted studies provide information that goes well beyond spectacular rankings and their short-sighted impact on national egos. A merit of comparisons is that, by showing the high levels of achievement attained in some of the participating countries, they provide empirical evidence that such levels are within reach in educational systems. In this respect, comparative results often prove to be a powerful lever to encourage countries to investigate why their students are less proficient than those of other countries and what can be done to improve their own systems.

In a number of countries, results from international studies such as those conducted by the IEA and the OECD have had strong public impact by bringing to the fore the issue of excellence. In many jurisdictions, people tend to hold a comfortable opinion that their school system is "the best in the world," and they are shocked when empirical evidence indicates that this is a questionable point of view.

While the international studies have identified a number of school variables that seem to "work" in producing higher levels of competence (e.g., student achievement has been found to be positively related both to the time given to the study of a subject at school and to the time spent on homework), the most important message conveyed to policymakers by international comparisons seems to be that, in general, the impact of any single school variable is small and is often linked to a variety of other aspects of the educational context. Probably, no spectacular progress in achievement can be expected from simply implementing "miracle" innovations copied from specific aspects of educational policy found in high-achieving school systems. By contrast, much can be learned by carefully examining how important positive and negative factors interact in a variety of other systems, to better design national reforms.

Patrick Griffin

See also Evidence-Based Policy and Practice; Quality of Education

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ISOCRATES

Isocrates (436–338 BCE) was an eminent ancient Greek philosopher and educator, one of the Ten Attic Orators, an associate of Socrates, and a friend

and rival of Plato. After a long rivalry between the school of Isocrates and the Academy of Plato, it was Isocrates's educational ideas and practices that prevailed in Europe, North Africa, much of the Middle East, and eventually all of North America. It was Isocrates, not Plato, who became the educator of the classical world and is widely known as the father of the liberal arts and liberal education. Yet in spite of his well-established prominence in the history of education, and a rich tradition of Isocrates scholarship in French and German, no general history of education in English contains a discussion, or, as in most cases, even a mention, of Isocrates's educational thought. He was born in Athens in 436 BCE and is reported to have starved himself to death in 338 BCE in despair over the loss of Athenian liberty after the battle of Chaeronea. Isocrates is reputed to have written some 60 works, including a treatise titled *On the Arts of Rhetoric*. If he did indeed compose this treatise, it has not survived—only 21 of the published works survive, along with nine epistles. While all of these works are concerned, in some way, with educational philosophy and practice, his *Antidosis* and *Against the Sophists* are most directly concerned with education. The school he founded was opened before its rival, Plato's Academy, and was always much more successful in terms of the number of students it attracted and the influence they had in politics and education.

Isocrates: Philosopher Not Rhetorician

While there is no question about the unequaled magnitude of Isocrates's influence in Western educational thought and practice, there is much debate concerning the nature and value of his educational ideas. There are, however, two obstacles to ascertaining just what the nature and value of his educational ideas are, namely, classification and translation. Isocrates has come to be classified as a rhetorician, and consequently his works are translated on the assumption that he *was* a rhetorician. For example, the standard English translation by George Norlin (1928) has the advantage of including the Greek texts but the disadvantage of translating very different Greek words into a single English word; for example, four different Greek words for speech, reason, rhetoric, and discourse are all translated into the single English word *rhetoric*. This is a result of the assumption that Isocrates was a rhetorician who advocated rhetorical education. There are reasons to doubt the veracity of that classification. Although the word *rhetoric*

was a familiar one in his day, Isocrates does not use it to describe himself or his activity. On the contrary, in his *To Philip*, his *Busiris*, and some of his epistles, for example, Isocrates explicitly insists that he is not a rhetor, does not practice rhetoric, and is not a rhetorical educator. He carefully explains what distinguishes him from those concerned with rhetoric and rhetorical education: He does not teach rhetoric, the art of persuasion, but rather philosophy and the arts of truthful discourse. He describes himself as a philosopher concerned with the art of discourse or reasoned debate, and his longest educational work, the *Antidosis*, is an imitation of a defense of philosophy, the *Apology of Socrates*.

The Most Valuable Thing in Human Life: The *Politeian*

Isocrates repeatedly claims that the most valuable of all human activities is politics, though he believed that politics is inseparable from religion and economics. He argues that every political community is defined by a *politeian*, or "political doctrine." A *politeian* is a definition of political justice, and of the acceptable means to attain justice so defined within a particular regime. The goal of politics is to attain justice, that is to say, a distribution of material goods and powers that satisfies the material interests of all citizens sufficiently to sustain a stable political order. While Isocrates argues that there are virtues that are valued in almost every human community—virtues such as honesty or moderation—he also argues that there cannot be any universally valid *politeian*. Each community will discover and sustain the *politeian* that meets the requirements of its citizens in their particular time and place. As material conditions or the aspirations of citizens evolve over time, the *politeian* too should evolve through a process of moderate and reasoned debate among the citizenry as a whole. The primary purpose of education is to prepare young men—and it is men only—for participation in such debate.

The Essential Nature of Education

Isocrates argues that it is the essential nature of education to be subordinate to other, more valuable human activities. The most valuable of all human activities is politics. Consequently, it is both logically necessary and a historical fact that the conduct and the goal of educational practice is wholly determined by the *politeian*. Isocrates argues that education must be and always is subordinate to politics and

consequently has no goal and no value of its own; there is no notion that "learning is good in itself," no sense of education or knowledge being intrinsically valuable. Education is subordinate to politics.

The Value of Conditional Deduction

Isocrates's most influential educational idea—an idea now almost universally assumed—concerns the relationship between education and the *politeian*. All educational theory and practice depend on normative judgments, that is, judgments about what is valuable and what is not valuable. The curriculum theorist and the practicing teacher must ask, for example, which books are valuable to read and which books are not valuable or are harmful. Isocrates argues that all normative judgments in education must be made using the logical method of conditional deduction, the most commonly used method in education. In the simplest terms, the method of conditional deduction consists of "if– then" statements: *If* I believed that the political principles of diversity and tolerance are valuable, *then* I would claim that books that celebrate diversity are valuable parts of the curriculum while books advocating racism or other modes of discrimination are not. Educators use the method of conditional deduction whenever they derive educational prescriptions from political doctrine, as follows:

> *Axiom:* Education is by its very nature subordinate to politics (including religion and economics).
>
> Therefore, the conduct and goals of education must be subordinate to a *politeian*.
>
> Therefore, the educational theorist must begin with a commitment to some variant of the *politeian* of his community, in the form of a specific *politeian* (e.g., liberalism, conservatism, socialism, etc.).
>
> Then, by conditional deduction, the theorist deduces from the *politeian* what the practices, goals, and value of education ought to be.
>
> Thus, if the values of the *politeian* are X (e.g., liberalism), the practices, goals, and values of education ought to promote X (e.g., liberalism).

If our *politeian* values equality, then students will be treated equally in education; if our *politeian* values inequality, then students will be treated unequally. If our regime is committed to a particular religion, then we must deduce that teachers will be committed to that religion and that the curriculum must be consistent with it. Every aspect of education is wholly determined by the *politeian*: From the qualities teachers ought to have, to the teaching methods, to every aspect of the curriculum, and the knowledge, skills, and moral dispositions students are expected to acquire, all are conditionally deduced from political doctrine.

While Isocrates believed that the practice and goals of education ought to be deduced from the prevailing *politeian*, he did not think of education as preparing students to serve the state or the government. After all, government or the state can itself become a special-interest group, with interests and goals that are not wholly in the service of the citizens as a whole. Instead, Isocrates argued that education ought to prepare young men to serve the regime, understood in terms of the interests of the citizenry as defined by the *politeian*.

Education and Federalism

Isocrates's conception of education as serving the interests of a specific regime at a specific time raises questions of the relations between regimes. If the young are to be educated according to their own *politeian*, then how can international understanding and cooperation ever be facilitated? He answers these questions with the political idea of federalism, which is first formulated in his *Panathenaicus*, a work that arguably was foundational in the development of political federalism in the United States, Canada, and the European Union. He argued that regimes with compatible *politeian* could each maintain their own particular political identity, while at the same time finding grounds for common political action in their common interests. Isocrates believed that what made a person a civilized human being was neither any natural quality such as ethnicity or place of birth nor attachment to a particular regime, but rather an education in discourse. He argues in his *Panegyricus* that one is not born a civilized person but, rather, becomes a civilized person through an education that seeks practical wisdom and the skills and virtues of reasonable negotiation within and between regimes.

The Experience of Education

Isocrates used three teaching methods. The most important of the three was *mimesis*, in which the teacher presents himself as *mimesasthai:* The teacher is a model of virtue and discourse, which presents him for imitation. The second is instruction

by a teacher in the liberal arts (grammar, history, rhetoric), and the third is practice by repetition of spoken discourse and debate.

Perhaps the most surprising feature of Isocrates's educational thought is his repeatedly emphasized belief that formal education can contribute very little to the quality of human life and that the first duty of educators is to resist the constant temptation to exaggerate its efficacy. Indeed, his first educational writing, *Against the Sophists*, opens with a direct assertion that the primary problem in education was that teachers have a poor reputation because they promise that education can attain much more than it actually can. He found that educators claimed (then as now) that education could and should achieve a long list of benefits: Formal education could prepare people (*any* people) to be responsible and active citizens, critical thinkers, lifelong learners, employable and productive contributors to the economy, participants in the arts and cultural life, good parents, moral paragons of tolerance, honesty, and justice, and more. In response to such impossible claims, Isocrates argued that while education could play a vitally important role in the life of an individual and a community, it was false and irresponsible to claim that education could ever (or has ever) come close to achieving the goals listed by educators. At the conclusion of *Against the Sophists*, Isocrates claimed that education could only be expected to partly enable a few students, if they possessed the right natural dispositions, to attain a narrow set of practical goals: Within the prevailing *politeian*, students can be taught to moderate their material desires, to make practical judgments on personal and political matters, and to effectively express those judgments in discourse for the sake of the regime of which one is a citizen. Isocrates's students are conventional, practical citizens, not seekers of knowledge, not lovers of learning, truth, and beauty for their own sake.

James R. Muir

See also Aristotle; Cicero; Liberal Education: Overview; Plato; Quintilian; Socrates and Socratic Dialogue; Sophists

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